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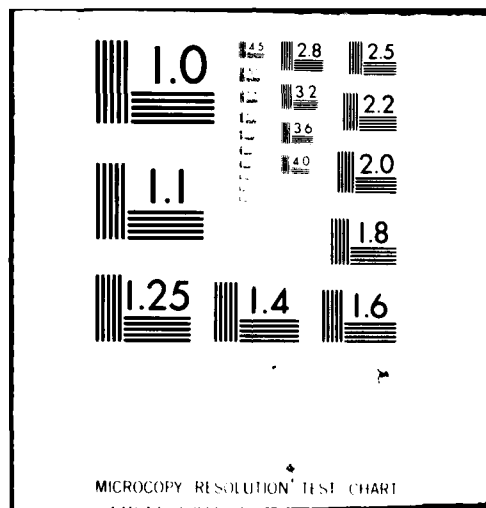
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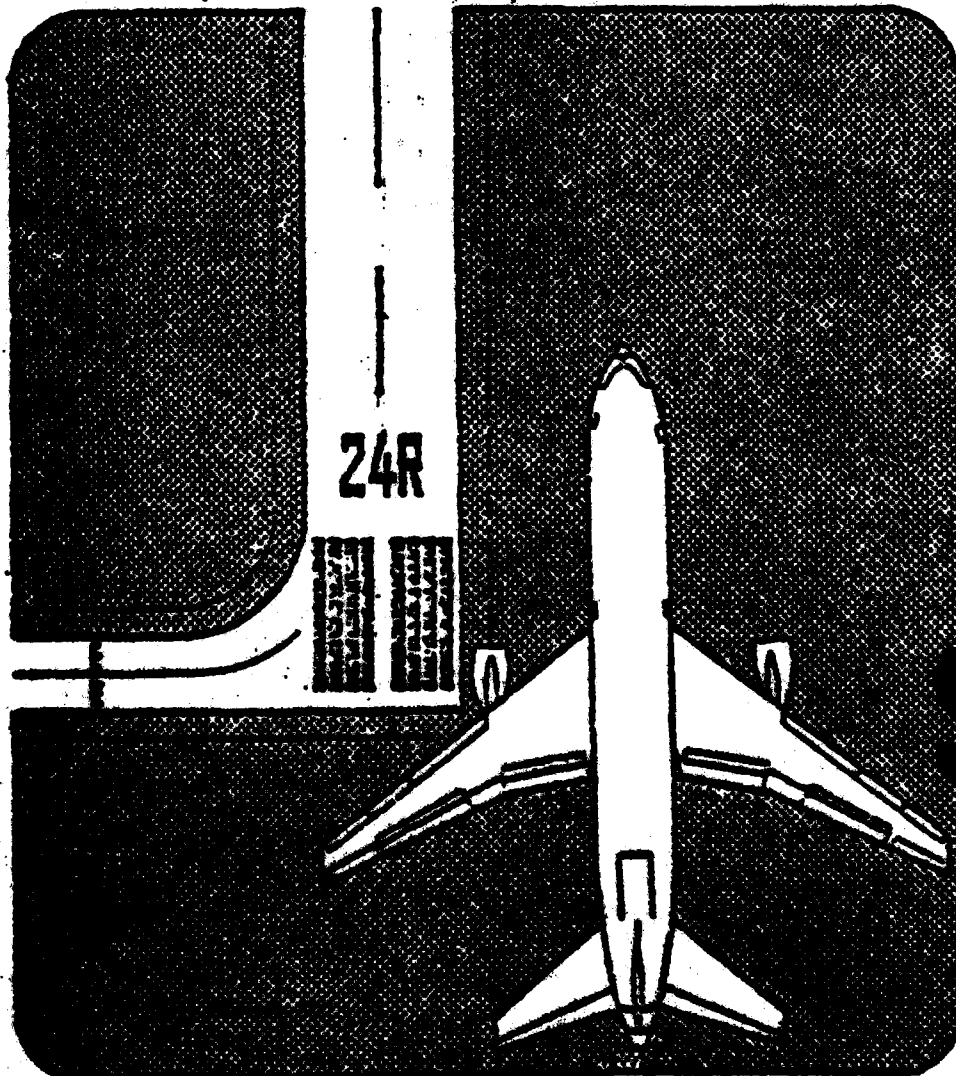
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LOS ANGELES INTERNATIONAL AIRPORT

DATA PACKAGE NO. 4

AIRPORT IMPROVEMENT
TASK FORCE DELAY STUDIES

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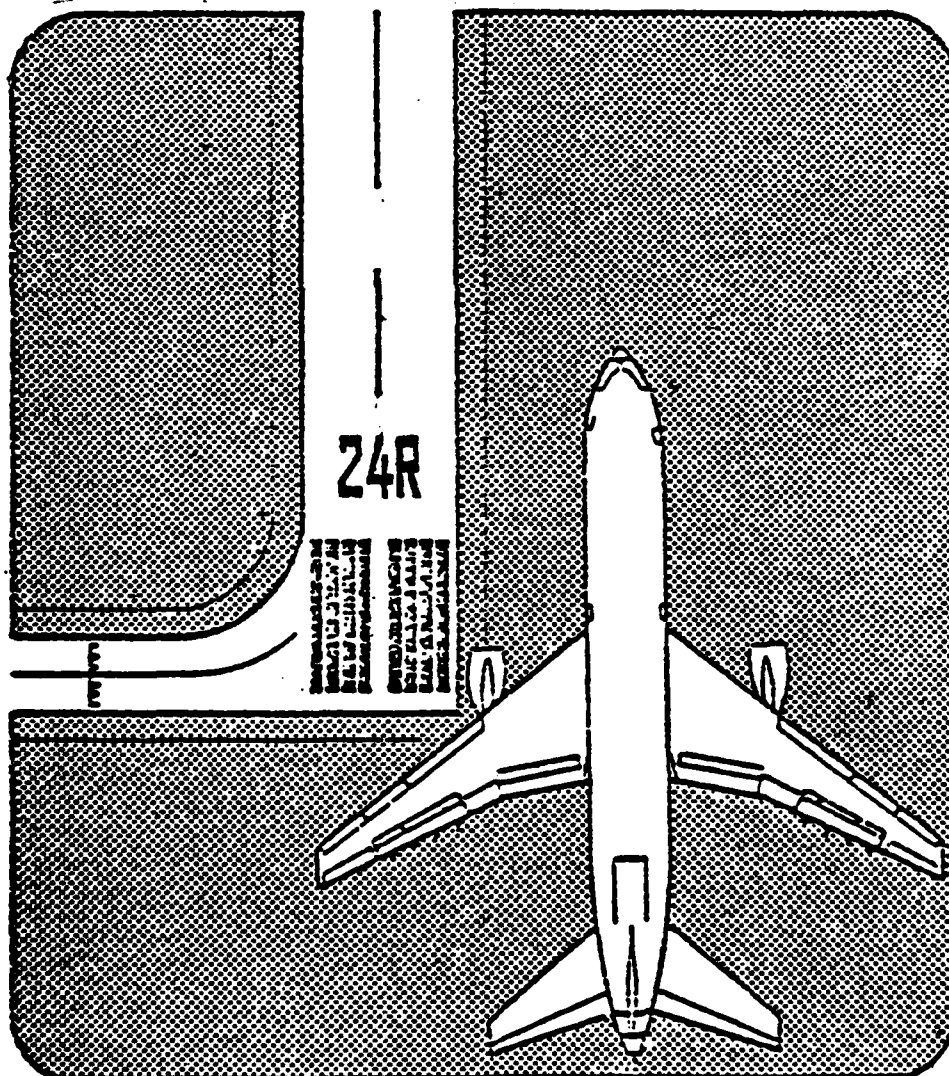
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LOS ANGELES INTERNATIONAL AIRPORT

DATA PACKAGE NO. 4
AIRPORT IMPROVEMENT
TASK FORCE DELAY STUDIES.



AUGUST 1979

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**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

DATE:
IN REPLY
REFER TO: ANA-220

NATIONAL AVIATION FACILITIES
EXPERIMENTAL CENTER
ATLANTIC CITY, NEW JERSEY 08405



SUBJECT: Los Angeles Simulation Model Demand & Aircraft Distributions
for Stage 1 and Stage 2 Experiments

FROM: NAFEC Program Manager, ANA-220

TO: Royal Mink, AWE-4

Enclosed is data package No. 4 for review by the Task Force members. Data package No. 3 has been reviewed along with all model inputs (separations, route structure, etc.) by the Task Force since the meeting in March 1979. All comments have been considered in the experimental design for Stage 1 and Stage 2 as described in Table 1 of this report.

Three main areas (1) the average day/peak month demand for 1978, 1982, and 1987, (2) the distributions applied to the demand, and (3) the forecast for the 1982 and 1987 traffic levels, recieved special attention during the preparation of the experiments. The average day/peak month demands were developed from an August 1978 OAG schedule along with the tower traffic report, the task force's 1982 forecast and 1987 traffic samples.

The resulting 1978, 1982, and 1987 demand levels (after application of the lateness distribution for arrivals) are listed in Tables 2 through 4 and shown in Figures 1 through 6. The 1978 demand reflects the activity level experienced at the facility on August 4, 1978. The 1982 demand level compares with Table III - 1 (page 13) of the interim capacity report for total movements during the day. The 1987 demand shows an increase in operations in accord with the schedule provided by the Task Force. The percentage of Class 1, 2, 3, and 4 operations for 1978, 1982 and 1987 are shown in Tables 2, 3, and 4 respectively (the class 1 percentage increases over the years).

An analysis of the yearly passenger totals and aircraft operations is shown in Table 5. Passenger totals for the years 1982 and 1987 agree with the FAA forecast data. The 1978 demand experienced at Los Angeles indicates that passenger totals approached the projected 1982 level. The calculated airline and air taxi operations agree with the actual totals in 1978 and are the same in 1982 compared with the FAA forecast. (Assuming that 19% of the total yearly traffic is handled in July and August). The total operations differ in 1987 from the FAA forecast

✓	100
Justification	
Unannounced	
By	
Distribution	
Availability	
Cost	

probably because of the assumption that Class 1 operations will be increased from 25.3% to 33.1% for the airline operations.

The distributions shown in Tables 6 through 12 were applied to the demand schedules for particular experiments. These distributions were developed from information obtained during data collection, reported runway and gate utilization and future plans for the airport improvements (tunnel reconstruction, terminal expansion, etc.). For example, the class and runway distribution for arrivals and departures experienced during data collection (VFR-1) are shown in Table 13.

Attachment E, Class and Runway Demand Distributions for Arrivals and Departures includes a summary of the amount of scheduled activity on each runway for each experiment. The experiment, grouped according to the direction of traffic flow and the weather condition during the simulation period are shown in the index of Attachment E. Tables 14 through 40 depict the runway assignments for each experiment which may be modified during the simulation exercise (either by an automatic reassignment of departure runway because of runway congestion or a change in the arrival aircraft runway after an evaluation of the results (average runway delays) for an experiment).

The development of the experimental design has included the application of data reduced from the collected field data at the airport along with information provided by the Task Force members. The model calibration established the VFR-1 parameters for the model. The other separation values (1978 IFR-1 and IFR-2, 1982 VFR-1 and IFR-1, and 1987 VFR-1 and IFR-1) were discussed and coordinated with METREK and facility personnel.

The experimental design for the combined Stage 1 and 2 simulation runs is shown in Attachment F of this report. The experiments starts with the calibration inputs and progress in sequence with each change to the model inputs noted for each experiment. A single entry of the experiment number indicates that only an aircraft schedule input change is required to perform the experiment.

JOHN VANDERVEER

TABLE OF CONTENTS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
1	Attachment A - Los Angeles Delay Experiments	1
2	Attachment B - 1978, 1982, 1987 Demand with Class Percentages	5
3	Attachment C - Analysis of Yearly Totals for Passenger and Aircraft Operations	15
4	Attachment D - Distribution Applied to Demand	18
5	Attachment E - Class and Runway Demand Distribution for Arrival and Departures	35
6	Attachment F - Experimental Design for Combined Stages 1 and 2	64

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	1978 Demand (from 0000 to 0700 Local Time)	9
2	1982 Demand (from 0000 to 0700 Local Time)	10
3	1978 Demand (from 0700 to 1400 Local Time)	11
4	1982 Demand (from 0700 to 1400 Local Time)	12
5	1987 Demand (from 0700 to 1400 Local Time)	13
6	1987 Demand with Peaks (from 0700 to 1400 Local Time)	14

LIST OF TABLES

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Los Angeles Delay Experiments	2
2	1978 Demand with Class Percentages	6
3	1982 Demand with Class Percentages	7
4	1987 Demand with Class Percentages	8
5	Analysis of Yearly Totals for Passenger and Aircraft Operations	16
6	LAX 1978 and 1982 Input Distributions	19
7	LAX Tunnel Improvement Input Distributions	21
8	LAX Terminal Expansion Input Distributions	23
9	LAX Remote Terminal Input Distributions	26
10	LAX Tunnel Construction Input Distributions (VFR)	27
11	LAX Tunnel Construction Input Distributions (IFR)	29
12	LAX 1987 Input Distributions	31
13	Class and Runway Demand Distributions for Arrivals and Departures (Field Data)	34
14 - 40	Class and Runway Demand Distribution for Arrivals and Departures (each Experiment)	37-64

ATTACHMENT A

LOS ANGELES DELAY EXPERIMENTS

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES

AUGUST 1979

TABLE 1
LOS ANGELES DELAY EXPERIMENTS

Experiment number	Model	Study case ^a	Arrival runways	Departure runways	Weather	Demand	ATC System ^b scenario	Near Term ^c improvements
Stage 1 Experiments								
1	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1978	1978	None
2	ASM	2	24L, 24R, 25L, 25R	24L, 25R	IFR1	1978	1978	None
3	ASM	3	24R, 25L	24L, 25R	IFR2	1978	1978	None
4	ASM	5	6R, 7L	24L, 25R	VFR1	1978	1978	None
5	ASM	6	6R, 7L	24L, 25R	IFR1	1978	1978	None
6	ASM	4	6L, 6R, 7L, 7R	6L, 6R, 7L, 7R	VFR1	1978	1978	None
7	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1978	None
8	ASM	2	24L, 24R, 25L, 25R	24L, 25R	IFR1	1982	1978	None
9	ASM	4	6L, 6R, 7L, 7R	6L, 6R, 7L, 7R	VFR1	1982	1978	None
10	ASM	5	6R, 7L	24L, 25R	VFR1	1982	1978	None
10A	ASM	6	6R, 7L	24L, 25R	IFR1	1982	1978	None
11	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1982	1982 ^e
12	ASM	2	24L, 24R, 25L, 25R	24L, 25R	IFR1	1982	1982	1982 ^e
13	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1982	2, 3 ^f
15	ASM	5	6R, 7L	24L, 25R	VFR1	1982	1982	5, 7 ^g
16	ASM	4	6L, 6R, 7L, 7R	6L, 6R, 7L, 7R	VFR1	1982	1982	5, 7, 8 ^g
17	ADM	n.a.	n.a.	n.a.	n.a.	1978	1978	None
17A	RCM	7	24L, 24R, 25L	24L, 24R, 25L	VFR1	1982	1982	Tunnel Construction ^j
17B	RCM	7	24L, 24R, 25L, 25x ^k	24L, 24R, 25L, 25X	VFR1	1982	1982	Tunnel Construction
17C	RCM	7	24L, 24R, 25L, 26	24L, 24R, 25L, 26	VFR1	1982	1982	Comments-Usage for Light
n.a. = not applicable.								

a. Study cases (combinations of runway use and weather conditions) are defined in Figure III-1.

b. FAA will describe impact of 1982 and post-1987 ATC systems on model inputs.

c. Potential near-term improvements are identified in the Los Angeles International Airport Improvement Task Force Interim Report, and in Appendix B.

d. Airfield Simulation Model.

e. Task Force establishes packages of near-term improvements most likely to be implemented in 1982 and 1987 time frames. The 1982 package includes improvement # 2 (high-speed taxiway off Runway 25L to the south), improvement # 3 (strengthening of the Sepulveda Tunnel), (cont.)

TABLE 1 (CONTINUED)

- e. (cont.) new taxiway access to threshold of Runway 24R, and temporary holding areas on future Taxiway 75. The 1987 package includes all 1982 improvements plus Satellite 1, International Terminal, and/or remote parking for 20 aircraft at west end of airport. These packages of improvements are subject to Task Force review and revision.
- f. Impact of absence of improvements # 2 and # 3 (high-speed taxiway of Runway 25L and strengthening of the Sepulveda Tunnel).
- g. Improvement # 5 is a high-speed taxi exit off Runway 7. Improvement # 7 is a high-speed taxi exit to Taxiway 47 from Runway 6R. Improvement # 8 is a bypass area on the north side of Runway 7L.
- h. Annual Delay Model.
- i. Runway Capacity Model.
- j. Runway 25R closed for tunnel construction.
- k. During closure of 25R for tunnel construction, parts of Runway 25 are open for small aircraft arrivals and departures.

TABLE 1
LOS ANGELES DELAY EXPERIMENTS

Experiment number	Model	Study case ^a	Arrival Runways	Departure Runways	Weather	Demand	ATC System ^b scenario	Near-term Improvements ^c
Stage 2 Experiments								
18	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1982	10 ^j
19 A	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1978	Terminal Expansion ⁿ
20	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1982	Terminal Expansion ⁿ
21	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1982	1982	Remote Terminal ^o
22	ASM	7	24L, 24R, 25L	24L, 24R, 25L	VFR1	1982	1978	Tunnel Construction
22A	ASM	8	24L, 24R, 25L	24L, 24R, 25L	VFR1	1982	1978	Dual Taxiway ^p
23	ASM	8	24L, 25L	24L, 25L	IFR1	1982	1978	Tunnel Construction 25R
24	ASM	9	24R, 25R	24L, 25R	IFR1	1982	1978	Tunnel Construction 25L
25	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1987	1987	1987 ^o
25A	ASM	1	24L, 24R, 25L, 25R	24L, 24R, 25L, 25R	VFR1	1987	1987	1987
26	ADM	2	24L, 24R, 25L, 25R	24L, 24R	IFR1	1987	1987	1987
27	ADM	n.a.	n.a.	n.a.	n.a.	1982	1982	1982
28	ADM	n.a.	n.a.	n.a.	n.a.	1982	1982	None
29	ADM	n.a.	n.a.	n.a.	n.a.	1982	1978	1982
30	ADM	n.a.	n.a.	n.a.	n.a.	1982	1978	None
31	ADM	n.a.	n.a.	n.a.	n.a.	1987	1987	1987
32	ADM	n.a.	n.a.	n.a.	n.a.	1987	1987	None
33	ADM	n.a.	n.a.	n.a.	n.a.	1987	1978	1987
34	ADM	n.a.	n.a.	n.a.	n.a.	1987	1988	None

1. Improvement #10 consists of a series of taxiway improvements identified in Appendix B.

n. Construction of Satellite 1 and International Terminal. The need for this experiment will be reviewed by the Task Force after consideration of future airline terminal locations.

o. Remote parking for 20 aircraft at west end of Airport.

p. Additional experiment may be needed to test value of dual taxiway system around Satellite 4 during tunnel construction.

ATTACHMENT B

1978, 1982, and 1987 DEMAND with CLASS PERCENTAGES

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES

AUGUST 1979

TABLE 2
1978 DEMAND

TIME	AIR CARRIER	SUPPLEMENTS	AIR TAXI	GENERAL AVIATION	TOTAL
	ARRIVALS				
0000	16	1	1	2	20
0100	13	7	0	1	21
0200	3	3	1	0	7
0300	2	3	1	0	6
0400	5	5	0	0	10
0500	2	2	1	0	5
0600	9	0	5	4	18
0700	18	1	5	5	29
0800	25	4	5	7	41
0900	20	2	4	9	35
1000	40	1	6	8	55
1100	45	4	7	8	64
1200	28	1	3	9	41
1300	26	0	3	8	37
	DEPARTURES				
0000	19	1	2	2	24
0100	9	2	0	0	11
0200	1	6	1	0	8
0300	1	2	1	0	4
0400	1	3	1	0	5
0500	4	5	0	1	10
0600	9	2	4	2	17
0700	32	4	6	6	48
0800	49	3	3	9	64
0900	38	4	5	5	52
1000	34	2	6	6	48
1100	34	3	4	11	52
1200	44	5	5	11	65
1300	39	1	1	8	49
CLASS DISTRIBUTION (0700-1400)					
CLASS 1	CLASS 2	CLASS 3	CLASS 4		
20 %	57 %	18 %	5 %		

TABLE 3
1982 DEMAND

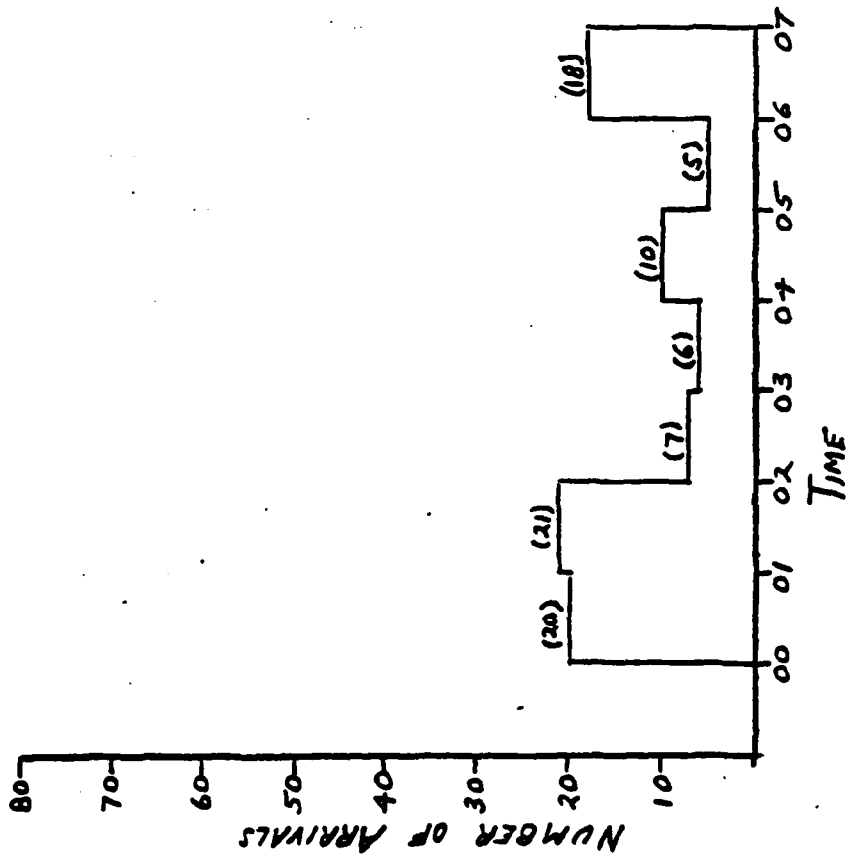
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TIME	AIR CARRIER	SUPPLEMENTS	AIR TAXI	GENERAL AVIATION	TOTAL
ARRIVALS					
0000	12	1	1	2	16
0100	15	7	0	1	23
0200	4	3	1	0	8
0300	4	3	1	0	8
0400	5	5	0	0	10
0500	1	2	1	0	4
0600	9	0	5	4	18
0700	18	1	5	5	29
0800	26	4	5	7	42
0900	22	2	4	9	37
1000	39	1	6	8	54
1100	46	4	7	8	65
1200	29	1	3	9	42
1300	29	0	3	8	40
DEPARTURES					
0000	22	1	2	2	27
0100	8	2	0	0	10
0200	4	6	1	0	11
0300	0	2	1	0	3
0400	4	3	1	0	8
0500	4	5	0	1	10
0600	10	2	4	2	18
0700	30	4	6	6	46
0800	49	3	3	9	64
0900	42	4	5	5	56
1000	34	2	6	6	48
1100	34	3	4	11	52
1200	42	5	5	11	63
1300	43	1	1	8	53
CLASS DISTRIBUTION (0700-1400)					
CLASS 1		CLASS 2		CLASS 3	
22 %		59 %		14 %	
				5 %	

TABLE 4
1987 DEMAND

TIME	AIR CARRIER + SUPPLEMENTS	AIR TAXI	GENERAL AVIATION	TOTAL
ARRIVALS				
0000				
0100				
0200				
0300				
0400				
0500				
0600				
0700	20	5	5	30
0800	35	5	7	47
0900	27	4	9	40
1000	43	6	8	57
1100	59	7	8	74
1200	38	3	9	50
1300	32	3	8	43
DEPARTURES				
0000				
0100				
0200				
0300				
0400				
0500				
0600				
0700	39	6	6	51
0800	57	3	9	69
0900	48	5	5	58
1000	41	6	6	53
1100	41	4	11	56
1200	56	5	11	72
1300	55	1	8	64
CLASS DISTRIBUTION (0700-1400)				
CLASS 1	CLASS 2	CLASS 3	CLASS 4	
25 %	58 %	13 %	4 %	

1978 ARRIVAL DEMAND



1978 DEPARTURE DEMAND

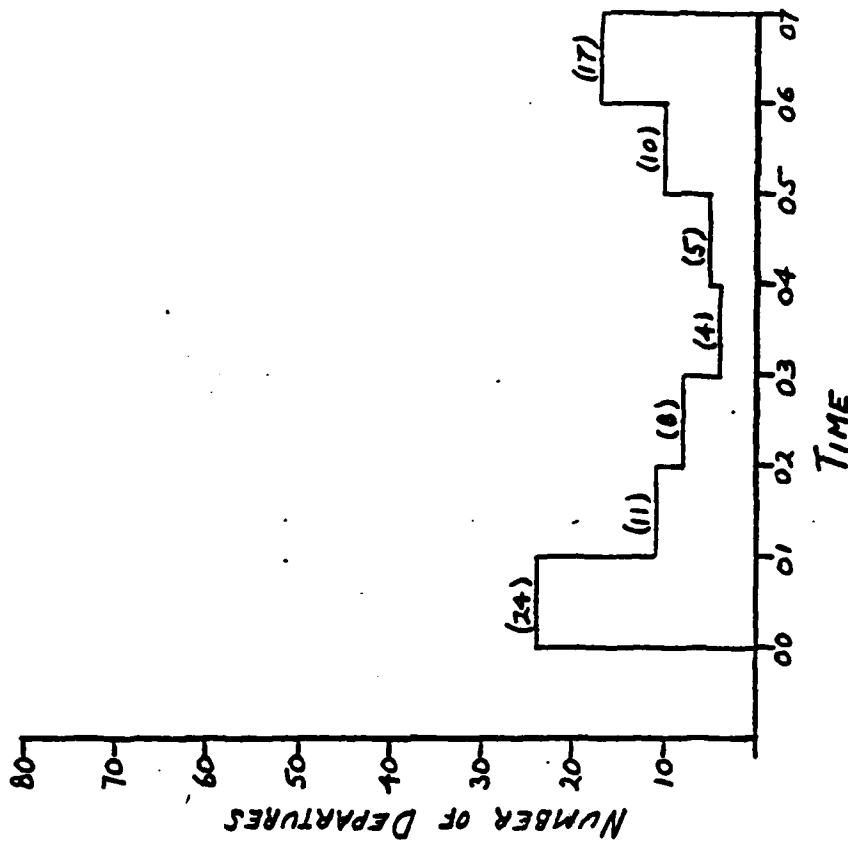
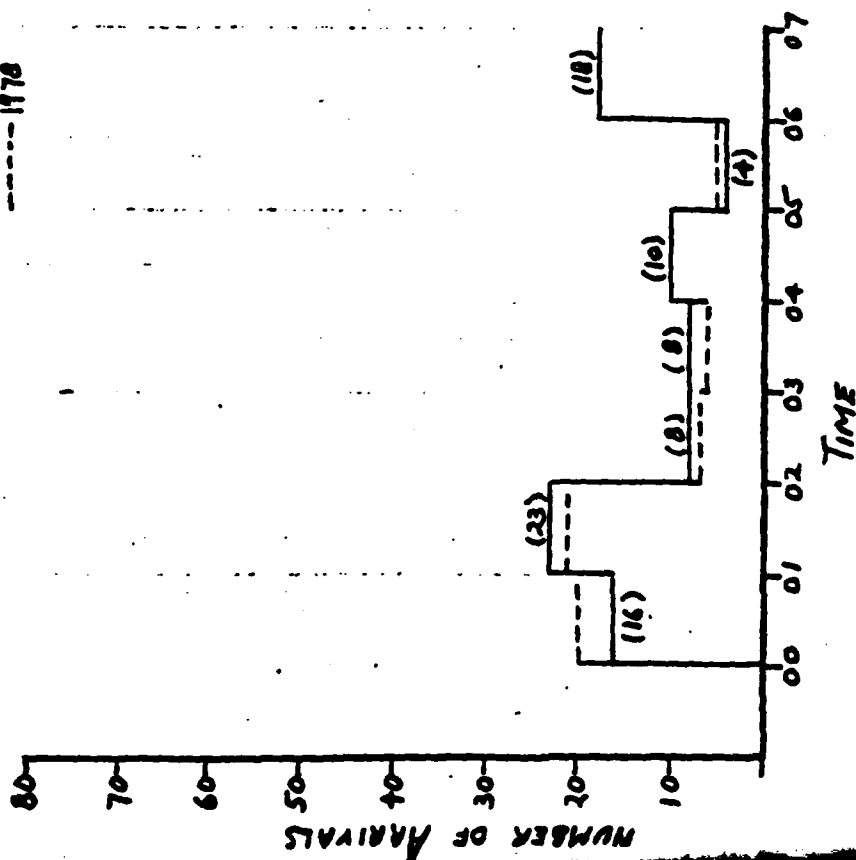


FIGURE 1. 1978 DEMAND
(FROM 0000 TO 0700 LOCAL TIME)

1982 Arrival Demand

— 1982
--- 1978



1982 Departure Demand

— 1982
--- 1978

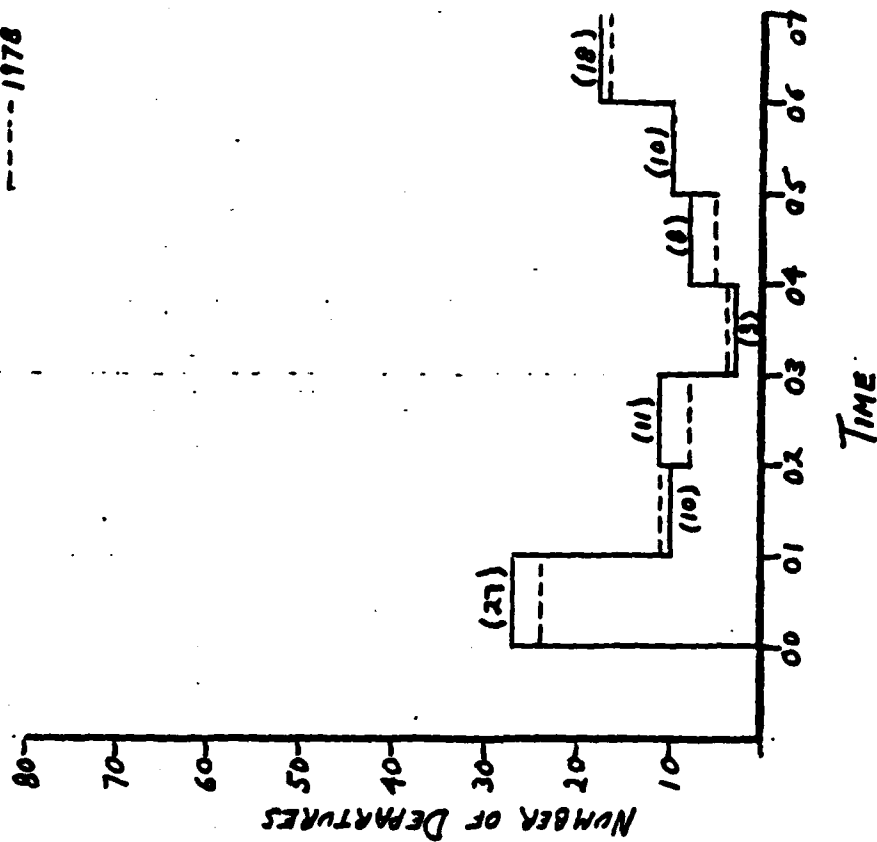
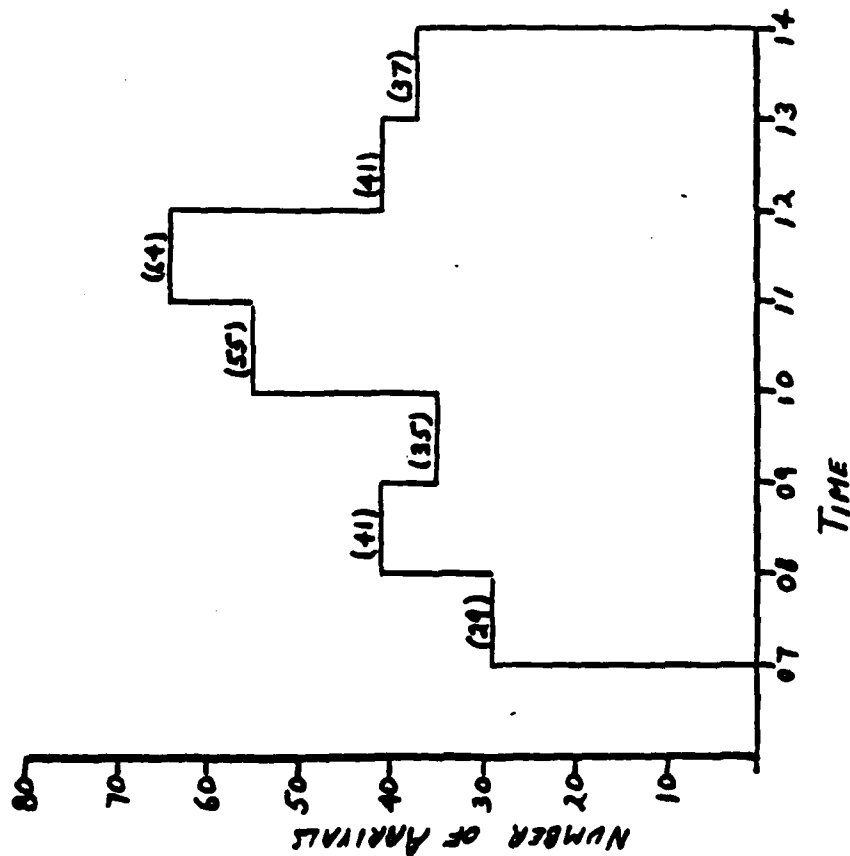


FIGURE 2. 1982 DEMAND
(FROM 0000 TO 0700 LOCAL TIME)

1978 ARRIVAL DEMAND



1978 DEPARTURE DEMAND

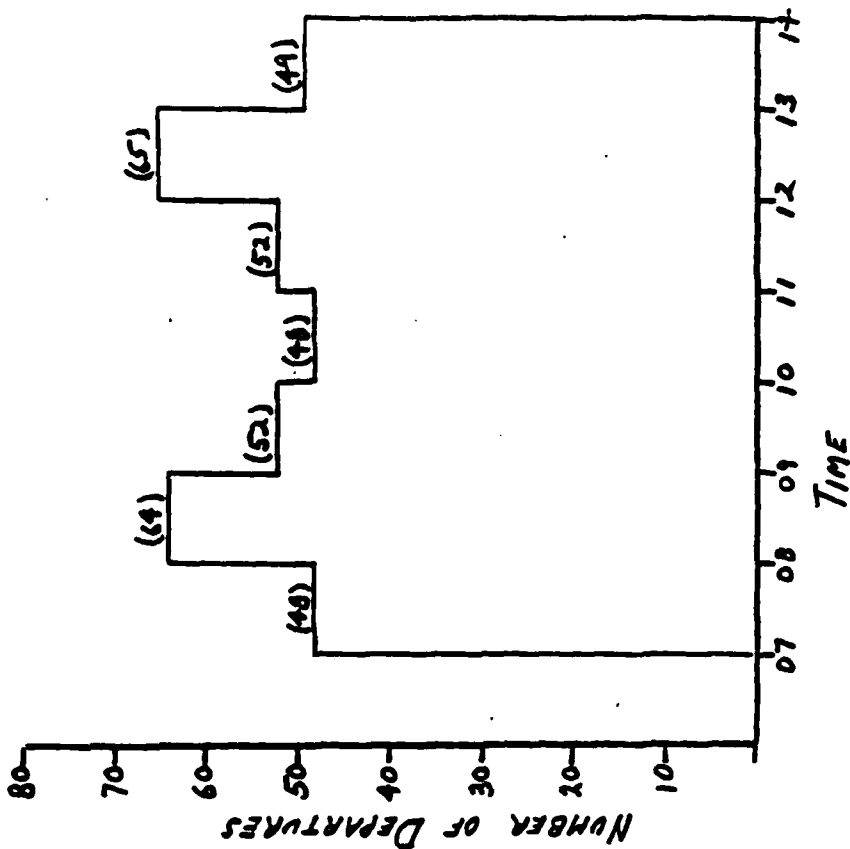
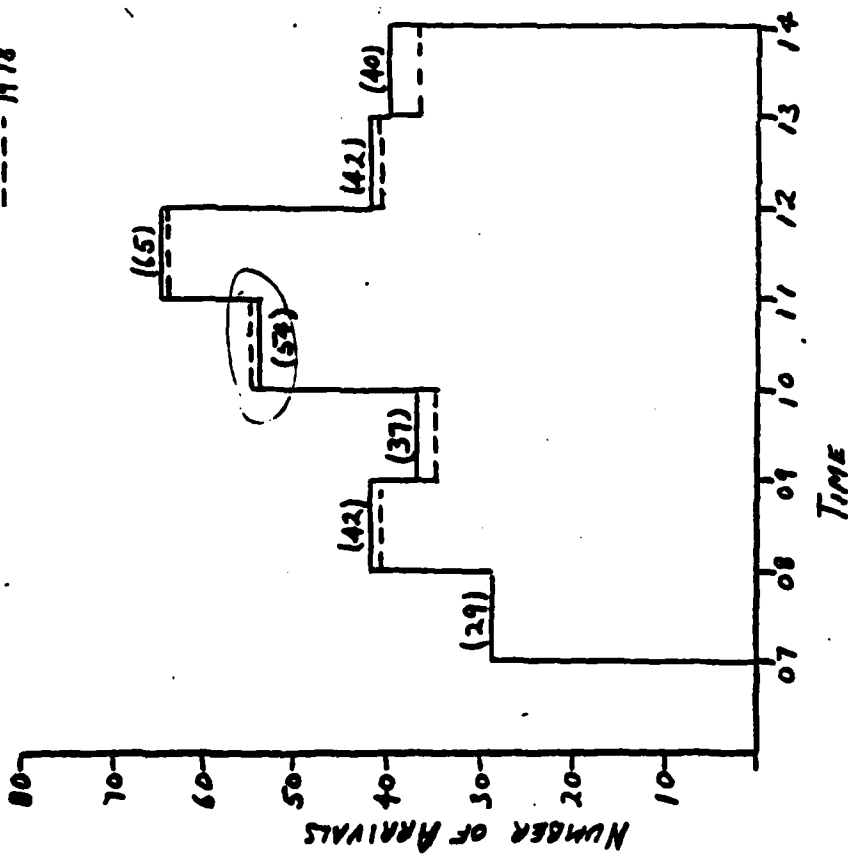


FIGURE 3. 1978 DEMAND
(FROM 0700 TO 1400 LOCAL TIME)

1982 ARRIVAL DEMAND

— 1982
--- 1978



1982 DEPARTURE DEMAND

— 1982
--- 1978

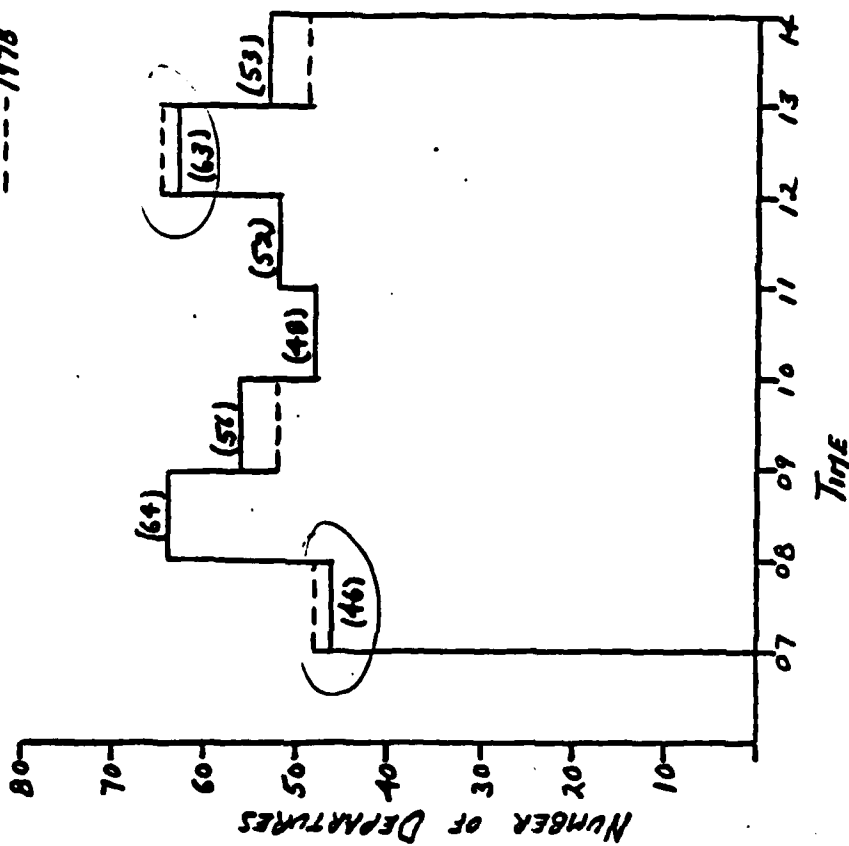
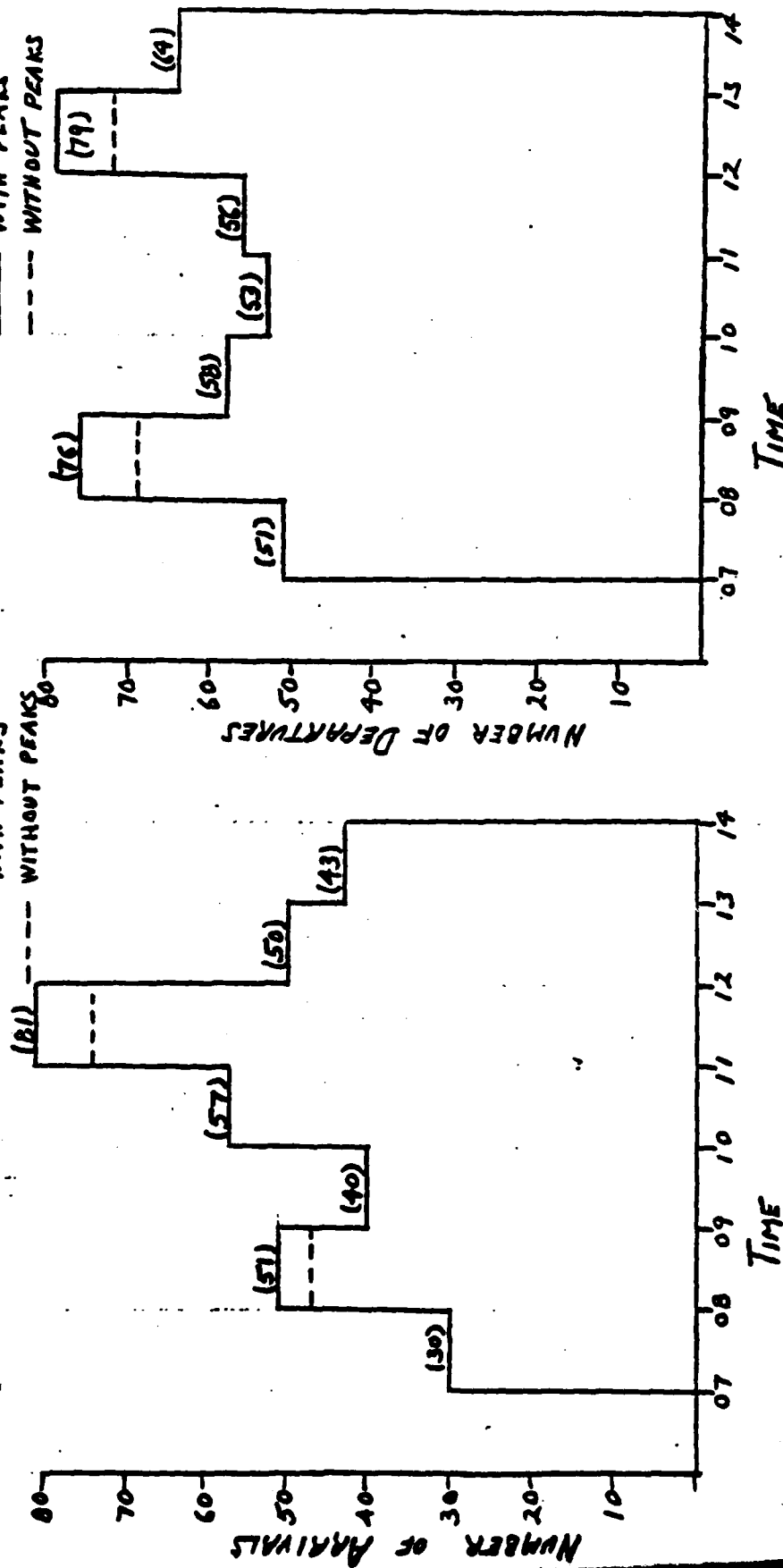


FIGURE 4. 1982 DEMAND
(FROM 0700 TO 1400 LOCAL TIME)

1987 ARRIVAL DEMAND WITH PEAKS

— WITH PEAKS
 --- WITHOUT PEAKS



1987 DEPARTURE DEMAND WITH PEAKS

— WITH PEAKS
 --- WITHOUT PEAKS

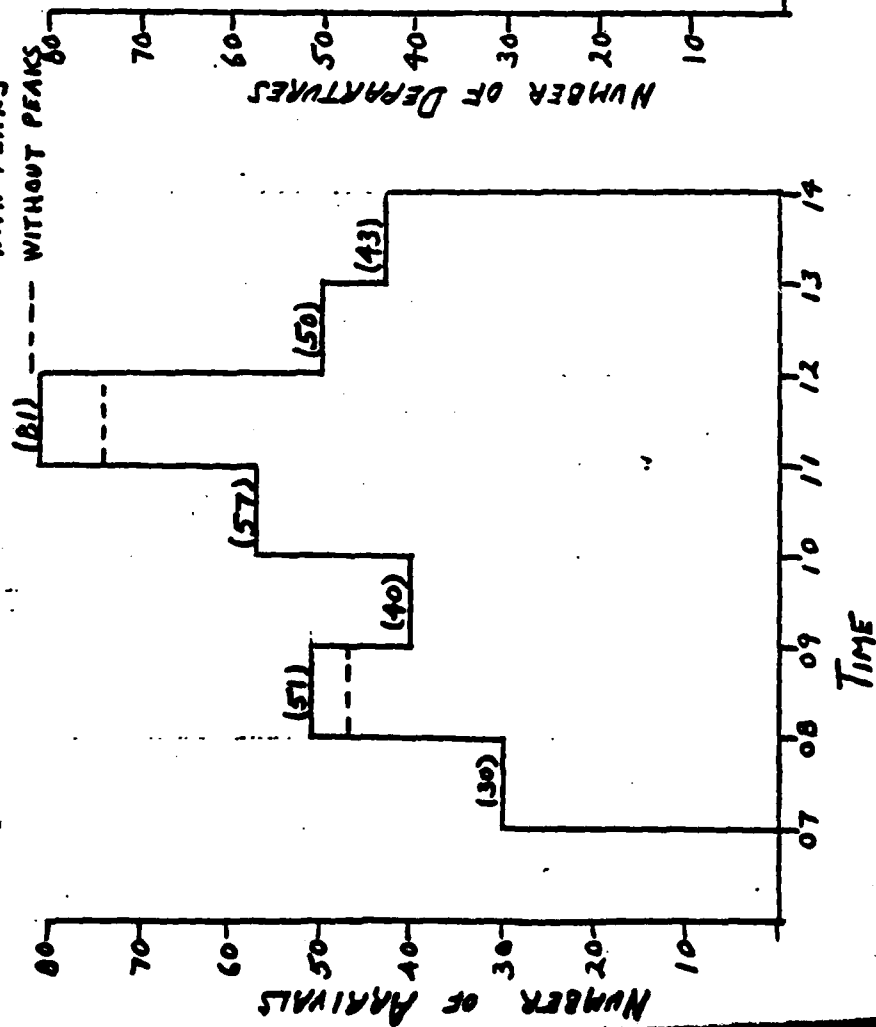
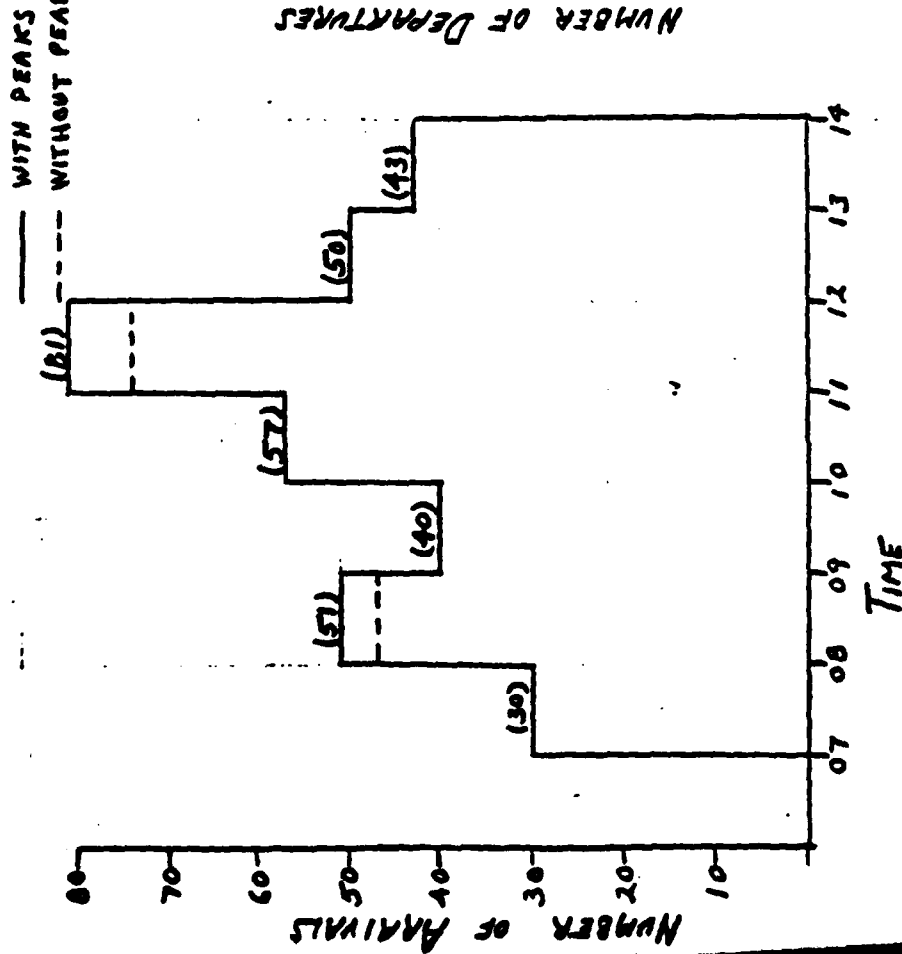


FIGURE 6. 1987 DEMAND WITH PEAKS
 (FROM 0700 TO 1400 LOCAL TIME)

1987 ARRIVAL DEMAND WITH PEAKS



1987 DEPARTURE DEMAND WITH PEAKS

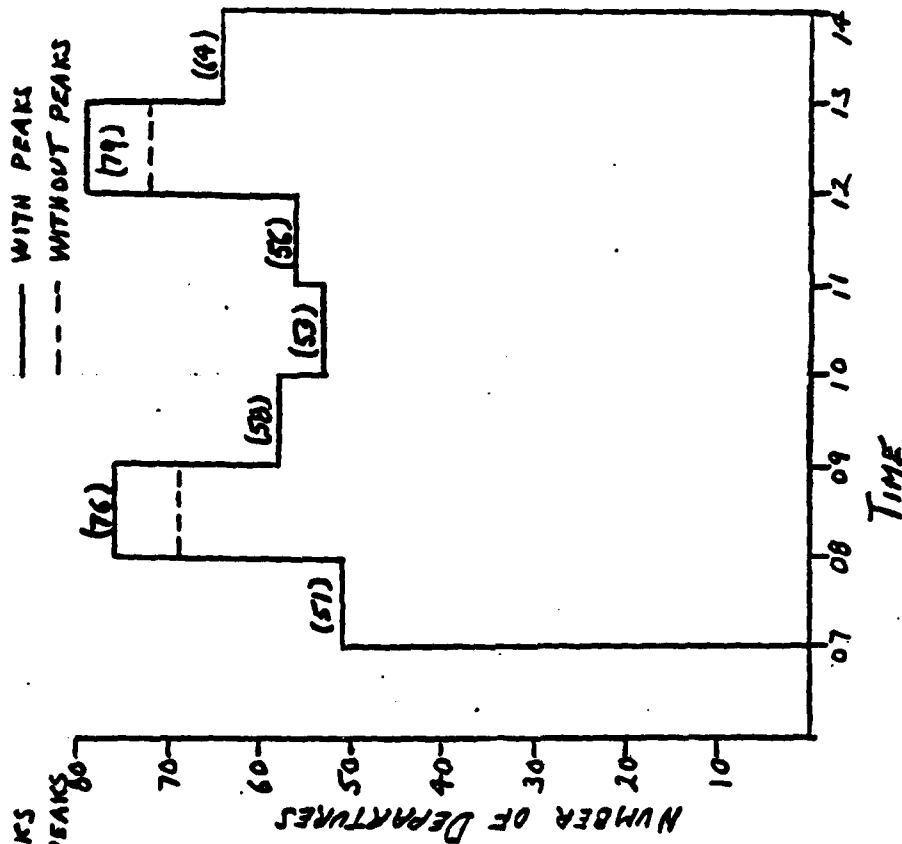


FIGURE 6. 1987 DEMAND WITH PEAKS
(FROM 0700 TO 1400 LOCAL TIME)

ATTACHMENT C

ANALYSIS of YEARLY TOTALS for PASSENGER and AIRCRAFT OPERATIONS

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES

AUGUST 1979

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TABLE 5

ANALYSIS of YEARLY TOTALS for PASSENGER and
AIRCRAFT OPERATIONS

	1978 (ACTUAL)	1982	1987
Total Daily Air Carrier and Supplemental Operations	1455	1478	1492
TOTAL DEPARTURES	727	739	746
% of Class 1 (For Class 2 Entire Class 3 Day)	25.3% 57.7% 17.0%	27.2% 55.4% 17.4%	33.1% 55.3% 11.6%
# of Passengers Per Aircraft	O.K.	300 in 82 100 20	187 300 170 25
Class 1 280 seats x 0.65 L.F. = 182.0 Class 2 140 seats x 0.65 L.F. = 91.0 Class 3 5 seats x 0.65 L.F. = 3.25	184=33,488 419=38,129 124=645 72,262 X 60 4,335,720 + 0.25 17,342,880 ~15,000,000	201=36,582 424=37,219 129=670 74,471 X 60 4,468,260 + 0.25 17,873,040 17,834,000	247=44,954 413=37,583 86=447 82,984 X 60 4,979,040 + 0.25 19,916,160 19,563,000
DAILY PASSENGER TOTALS			
July-August Passenger Totals			
+ % of yearly Total			
YEARLY PASSENGER COUNT			
FAA Forecast			

16,450,000 1.118

TABLE 5 (cont.)

	1978	1982	1987
DAILY AIRCRAFT OPERATIONS	1455	1478	1492
	<u>x 60</u>	<u>x 60</u>	<u>x 60</u>
July-August Aircraft Operations	87,300	88,680	88,520 89,520
+ % of Yearly Total	<u>+0.19</u>	<u>+ 0.19</u>	<u>+ 0.19</u>
	- 453,960	461,136	471,152 483,520
FAA Forecast	~ 431,000	460,000	488,000
ACTUAL COUNT	449,000		

ATTACHMENT D

DISTRIBUTIONS APPLIED to DEMAND

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES
AUGUST 1979

TABLE 6

19

LAX 1978 and 1982 INPUT DISTRIBUTIONS

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS	RUNWAY/ARRIVAL FIX DISTRIBUTIONS
AIRLINE CATEGORY GATE, GATE, ... Z, Z, ...	GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...	RWY CLASS FIX Z, Z, ...
IA 1, 2, 3, 9, 10, 11 11, 26, 55, 62, 3, 3	1, 1 } see 1 } format 100 } above	1, 1 } see 1, 2, 3, 4 } format 17, 5, 5, 5, 5 } above
EA 2 100	2, 1 1, 2, 4 39, 11, 50	2, 1 1, 2, 4 94, 8, 32
NA 1, 2, 3 3, 79, 18	3, 1 1, 2 86, 14	3, 1 1, 4 90, 10
PA 2, 3 31, 69	4, 1 1, 2, 4 5, 15, 80	4, 1 1, 2, 4 89, 4, 7
TW 1, 2, 3, 1, 13, 14 16, 78, 4, 1, 1	5, 1 4 100	9, 3 3, 4 10, 90
AA 4, 5, 11, 12 78, 20, 1, 1	6, 1 1, 4 23, 77	10, 3 1, 4 17, 83
CO 5, 6, 7 4, 20, 76	7, 1 1, 3, 4 5, 5, 90	11, 3 1, 2, 3 78, 21, 1
DL 5, 6, 7 6, 85, 9	8, 1 2, 4 10, 90	12, 3 4 100
NW 4 100	1, 2 1, 3, 4 5, 21, 74	9, 4 3, 4 50, 50
PS 5, 6, 7, 11, 12 3, 43, 52, 1, 1	2, 2 1, 3, 4 40, 7, 53	10, 4 1 100
YI 8 100	4, 2 3, 4 39, 61	11, 4 1, 2 79, 21
UA 7, 8 35, 65	5, 2 1, 3, 4 5, 41, 54	3, 2 1, 3, 4 40, 7, 53
WA 4, 5, 6 1, 48, 39	6, 2 1, 3, 4 5, 54, 61	12, 1 2, 4 10, 90
MI 9, 10 50, 50	7, 3 1, 3, 4 3, 73, 24	10, 1 2, 4 10, 90
CT 5, 6, 7 20, 72, 8	8, 0 1, 3, 4 1, 55, 64	11, 1 1, 2, 4 2, 95, 2
C2 9, 10, 11, 12 9, 5, 85, 1	9, 2 1, 4 33, 67	13, 2 3, 4 23, 77
FI 10, 12 13, 87	10, 0 3, 4 33, 67	12, 4 4 100
GA 9, 10, 11, 12 55, 8, 36, 1	11, 0 1, 2, 3, 4 47, 10, 16, 27	L - -
	12, 0 3, 4 33, 77	

TABLE 6 (cont.)

20

LAX 1978 and 1982 INPUT DISTRIBUTIONS

GATE/DEPARTURE RUNWAY DISTRIBUTIONS		RUNWAY/DEPARTURE FIX DISTRIBUTIONS	
} GATE/CLASS RUNWAY, RUNWAY,... Z,Z,.....		} ^{RWY} FLAG, RWY , CLASS RUNWAY, RUNWAY ... ^{FIX} Z,Z,... (FLAG=0, SET FIX=9)	
2,1 } see 2,3 } format 98,2 } above	10,2 2,4 33,47	1,1,1 } see 1,2 } format 72,28 } above	
3,1	11,2	1,2,1	
2	1,2	1,2	
100	75,25	72,28	
4,1	12,2	1,3,1	
1,2,4	3,4	1	
3,95,2	45,55	100	
5,1	13,2	1,4,1	
2	3	1	
100	100	100	
6,1	4,3	1,1,2	
1,2,4	2,4	1,2	
10,75,15	47,53	27,73	
7,1	5,3	1,2,2	
2	1,3,4	1,2	
100	25,25,50	27,73	
8,1	6,3	1,3,2	
1,2,3	3	1	
4,94,2	100	100	
10,1	7,3	1,4,2	
2	3	1	
100	100	100	
11,1	8,3	1,1,3	
2	3,4	2	
100	50,50	100	
12,1	9,3	1,2,3	
3	3,4	2	
100	35,65	100	
1,2	10,3	1,3,3	
1,2,3	2,3,4	1	
33,33,34	25,25,50	100	
2,2	11,3	1,4,3	
2,3,4	1,2,3,4	1	
73,25,2	27,13,32,28	100	
3,2	12,3	1,1,4	
2,3,4	3	2	
86,5,9	100	100	
4,2	9,4	1,2,4	
2,3,4	1,2,4	2	
2,71,27	7,7,96	100	
5,2	10,4	1,3,4	
2,3,4	1,2,3	1	
19,57,24	42,42,16	100	
6,2	11,4	1,4,4	
1,2,3,4	1,2,3,4	1	
7,25,55,13	38,30,12,21	100	
7,2	12,4		
1,2,3,4	4		
8,37,44,17	100		
8,2	1,1		
2,3,4	2,3		
19,61,20	99,2		
9,4			
3,4			
50,50			

TABLE 7
LAX TUNNEL IMPROVEMENT INPUT DISTRIBUTIONS

21

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS	RUNWAY/ARRIVAL FIX DISTRIBUTIONS
AIRLINE CATEGORY GATE, GATE, ... Z, Z,	<div> <div> </div> <div> GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ... </div> </div>	<div> <div> RWY FIX, CLASS </div> <div> </div> </div>
	<div> <div> 1.7 } see 4.3 1 } format 3.4 100 } above 67.33 </div> </div>	
	2.1 } 5.3	
	1.2.4 } 4	
	39.11.50 } 100	
	3.1 } 6.3	
	1.2 } 3.4	
	86.14 } 67.33	
	4.1 } 7.3	
	1.2.4 } 3.4	
	5.15.80 } 50.50	
	5.1 } 9.3	
	4 } 3.4	
	100 } 10.90	
	6.1 } 10.3	
	1.4 } 1.4	
	23.77 } 17.83	
	7.1 } 11.3	
	1.3.4 } 1.2.3	
	5.5.90 } 78.21.1	
	8.1 } 12.3	
	2.4 } 4	
	10.90 } 100	
	1.2 } 9.4	
	1.3.4 } 3.4	
	5.21.72 } 50.50	
	2.2 } 10.4	
	1.3.4 } 1	
	40.7.53 } 100	
	4.2 } 11.4	
	3.4 } 1.2	
	39.61 } 79.21	
	5.2 } 3.2	
	1.3.4 } 1.3.4	
	5.41.54 } 40.7.53	
	8.2 } 12.1	
	1.3.4 } 2.4	
	5.56.21 } 10.90	
	7.2 } 10.1	
	1.3.4 } 2.4	
	3.73.24 } 10.90	
	8.2 } 11.1	
	1.3.4 } 1.2.4	
	1.55.44 } 3.95.2	
	9.2 } 13.2	
	1.4 } 3.6	
	33.47 } 23.77	
	10.2 } 12.4	
	3.4 } 4	
	35.67 } 100	
	11.2 }	
	1.2.3.4 }	
	47.10.16.27 }	
	1.2.4 }	
	3.4 }	
	25.77 }	

LAX TUNNEL IMPROVEMENT INPUT DISTRIBUTIONS

GATE/DEPARTURE RUNWAY DISTRIBUTIONS		RUNWAY/DEPARTURE FIX DISTRIBUTIONS	
GATE/CLASS RUNWAY, RUNWAY, ... Z, Z, ...		RWV FLAG, WK, CLASS RUNWAY, RUNWAY, FIX Z, Z, ... (FLAG=0, SET FIX=9)	
-2,1 2 100	see format above	10,2 2,4 25,75	SET DISTRIBUTIONS THE SAME AS TABLE 12 PAGE 33.
3,1 2 100		11,2 1,2,3 20,60,20	
4,1 2 100		12,2 3,4 75,25	
5,1 2,3,4 30,60,10		13,2 3,4 75,25	
6,1 3,4 75,25		4,3 2,4 35,65	
7,1 3,4 75,25		5,3 1,3,4 25,25,50	
8,1 3,4 75,25		6,3 3 100	
10,1 3,4 75,25		7,3 3 100	
11,1 2 100		8,3 3,4 50,50	
12,1 3,4 75,25		9,3 3,4 35,65	
1,2 1,2 5,95		10,3 2,3,4 25,25,50	
2,2 1,2 5,95		11,3 1,2,3,4 27,18,32,23	
3,2 1,2 5,95		12,3 3 100	
4,2 1,2,3 20,60,20		8,4 7,2,4 7,7,86	
5,2 2,3,4 10,70,20		10,4 1,2,3 35,35,30	
6,2 3,4 75,25		11,4 1,2,3,4 38,30,12,20	
7,2 3,4 75,25		12,4 4 100	
8,2 3,4 75,25		1,1 2 100	
9,2 3,4 30,50			

TABLE 8

23

LAX TERMINAL EXPANSION INPUT DISTRIBUTIONS

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS		
AIRLINE CATEGORY GATE, GATE, ... Z, Z, ...	GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...		
1A 9, 10, 11, 20, 22 2, 3, 3, 4, 6, 4, 6	see format 4-1 1 100	see format 1-3, 4 1, 3, 4 1, 5, 5, 4, 4	19, 3 1, 2, 3 7, 8, 21, 7
EA 2 100	2, 1 1, 2, 4 3, 11, 50	9, 2 1, 4 3, 6, 7	19, 3 1, 2, 3 7, 8, 21, 1
NA 2 100	3, 1 1, 2 8, 6, 1, 4	10, 2 3, 4 3, 4, 7	21, 3 1, 2, 3, 4 10, 10, 10, 20
PA 2, 3 31, 69	4, 1 1, 2, 4 5, 15, 90	11, 2 1, 2, 3, 4 4, 7, 10, 14, 27	22, 3 1, 2 6, 7, 33
1W 1, 2, 11, 13, 14 16, 7, 8, 4, 1, 1	5, 1 4 100	12, 2 3, 4 2, 3, 7, 7	1, 4 1, 3, 4 50, 50
AA 4, 5, 11, 12 7, 8, 20, 1, 1	6, 1 1, 4 2, 3, 7, 7	19, 2 1, 3, 4 6, 7, 7, 5	11, 4 1 100
CO 6, 7 24, 76	7, 1 1, 3, 4 5, 5, 90	20, 2 1, 3, 4 5, 21, 74	11, 4 1, 2 7, 9, 21
DL 6, 7 91, 9	8, 1 2, 4 10, 90	21, 2 1, 2, 3, 4 4, 7, 10, 14, 27	1, 4 1, 2 7, 9, 21
NW 4 100	19, 1 1, 2, 4 3, 11, 50	22, 2 1, 3, 4 5, 21, 74	20, 4 1, 2 7, 9, 21
PS 11, 12, 19 1, 1, 98	20, 1 1, 2, 4 50, 40, 10	4, 3 3, 4 6, 7, 33	21, 4 1, 2, 3, 4 60, 10, 10, 20
11 8 100	21, 1 1, 2, 4 2, 5, 2, 5, 50	5, 3 4 100	22, 4 3, 4 6, 7, 33
UA 7, 8 3, 5, 6, 5	22, 1 1, 2, 4 5, 5, 90	6, 3 3, 4 4, 7, 33	3, 2 1, 3, 4 40, 7, 33
WA 5, 6 61, 39	1, 2 1, 3, 4 3, 21, 74	7, 3 3, 4 50, 50	12, 1 2, 4 10, 90
AL 9, 10 50, 50	2, 2 1, 3, 4 40, 7, 53	9, 3 3, 4 10, 90	10, 1 2, 4 10, 90
CI 5, 6, 7 20, 72, 8	4, 2 3, 4 3, 6, 1	10, 3 1, 4 1, 2, 33	11, 1 1, 2, 4 1, 2, 33
C2 9, 10, 12, 21 9, 5, 1, 8, 5	5, 2 1, 3, 4 5, 6, 1, 5, 6	11, 3 1, 2, 3 7, 8, 21, 1	13, 2 3, 4 2, 3, 7, 7
FI 10, 12 1, 3, 5, 7	6, 2 1, 3, 4 5, 5, 6, 1	12, 3 4 100	12, 4 6 1100
GA 9, 10, 12, 21 5, 5, 8, 1, 3, 6	7 1, 3, 4 3, 7, 3, 2, 4	1 - 1	13, 1 3, 4 2, 3, 7, 7

TABLE 8 (cont.)

24

LAX TERMINAL EXPANSION INPUT DISTRIBUTIONS

GATE/DEPARTURE RUNWAY DISTRIBUTIONS		
} GATE/CLASS RUNWAY, RUNWAY, ... Z, Z,		
2,1 } see	7,2	172,3
2,3 } format	1,2,3,4	3
98,2 } above	8,31,44,17	1,100
3,1	8,2	19,3
2	2,3,4	1,2
100	19,81,20	75,25
4,1	9,2	20,3
1,2,4	3,4	1,2
5,95,2	50,50	175,25
5,1	10,2	21,3
2	2,4	1,2,3,4
100	33,67	27,18,32,23
6,1	11,2	22,3
1,2,4	1,2	2,4
10,75,15	75,25	33,67
7,1	12,2	9,4
2	3,4	1,2,4
100	65,35	7,7,8,6
8,1	13,2	10,4
1,2,3	3	1,2,3
4,96,2	100	33,33,34
10,1	19,2	11,4
2	1,2,3	1,2,3,4
100	33,33,34	38,30,17,20
11,1	20,2	12,4
2	2,3,4	4
100	73,25,2	100
12,1	21,2	19,4
3	1,2	1,2
100	75,25	75,25
13,1	22,2	20,4
2	2,4	1,2
100	33,67	75,25
20,1	4,3	21,4
2	2,4	1,2,3,4
100	33,67	38,30,17,20
21,1	5,3	22,4
2	1,3,4	1,2,3
100	25,25,50	33,33,34
22,1	6,3	1,1
2	3	2,3
100	100	99,2
1,2	1,3	13,1
1,2,3	3	3
33,33,34	100	100
2,2	8,3	
2,3,4	3,4	
73,25,2	50,50	
3,2	9,3	
2,3,4	3,4	
86,25,9	35,65	
4,2	10,3	
2,3,4	2,3,4	
2,71,27	25,25,50	
5,2	11,3	
2,3,4	1,2,3,4	
19,57,24	27,18,32,23	
6,2		
7,3,3,4		
7,3,3,4		

TABLE 9

25

LAX REMOTE TERMINAL INPUT DISTRIBUTIONS

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS	RUNWAY/ARRIVAL FIX DISTRIBUTIONS
AIRLINE CATEGORY GATE, GATE, ... Z, Z, ...	GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...	Runway GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...
IA	1,1	12,2
1,2,3,9,10,11,30	1	3,4
11,26,45,2,3,3,10	100	23,77
EA	2,1	30,2
2	1,2,6	1,3,4
100	39,11,50	40,7,53
NA	3,1	4,3
1,2,3	1,2	3,4
3,79,18	86,14	67,33
EA	4,1	5,3
2,3	1,2,4	4
31,69	5,15,80	100
TM	5,1	6,3
1,2,11,13,14	4	3,6
16,78,4,1,1	100	67,33
AA	6,1	7,3
4,5,11,12	1,4	3,4
78,20,1,1	23,77	50,50
CO	7,1	9,3
3,4,7	1,3,4	3,6
4,20,74	3,5,90	10,90
DL	8,1	10,3
5,6,7	2,4	1,4
6,85,9	10,90	12,83
NW	30,1	11,3
4	1,2,4	1,2,3
100	39,11,50	78,21,1
PS	1,2	12,3
5,6,7,11,12	1,3,4	4
3,43,52,1,1	5,21,74	100
TI	2,2	30,3
8	1,3,4	1,2,3
100	40,7,53	78,21,1
UA	4,2	9,4
7,8	3,4	3,4
35,65	39,61	50,50
WA	5,2	10,4
4,5,6	1,3,4	1
3,58,39	5,41,54	100
BT	6,2	11,4
9,10	1,3,4	1,2
50,50	5,54,61	79,21
C1	7,2	30,4
5,6,7	1,3,4	1,2
20,72,8	3,73,24	79,21
C2	8,2	3,2
9,10,11,12	1,3,4	1,3,4
9,5,83,1	1,55,44	40,7,53
F1	9,2	12,1
10,12	1,4	2,6
13,87	33,67	10,90
GA	10,2	10,1
9,10,11,12	3,4	2,4
55,8,36,1	33,67	10,90
	11,2	11,1
	1,2,3,4	1,2,4
	47,10,16,27	3,95,2

NOTE: Gate 30 converted to Gate 75 in Demand schedule.

TABLE 9 (cont.)

26

LAX REMOTE TERMINAL INPUT DISTRIBUTIONS

GATE/DEPARTURE RUNWAY DISTRIBUTIONS			RUNWAY/DEPARTURE FIX DISTRIBUTIONS		
} GATE/CLASS RUNWAY, RUNWAY, ... Z, Z,			^{Rw} FLAG, FIX , CLASS CLASS, CLASS, ... , <i>FIX</i> Z, Z, ... (FLAG=0, SET FIX=9)		
2.1	} see format	9.2	30.4		
2.3		3.4	1.2		
98.2		50.50	75.25		
3.1		10.2	1.1		
2		2.4	2.3		
100		33.67	98.2		
4.1		11.2	13.1		
1.2.4		1.2	3		
3.95.2		75.25	100		
5.1		12.2			
2		3.4			
100		65.35			
6.1		15.2			
1.2.4		3			
10.75.15		100			
7.1		30.2			
2		1.2.3			
100		33.33.34			
8.1		4.3			
1.2.3		12.4			
6.94.2		33.67			
10.1		5.3			
2		1.3.4			
100		25.25.50			
11.1		6.3			
2		3			
100		100			
12.1		7.3			
3		3			
100		100			
30.1		8.3			
2		3.4			
100		50.50			
1.2		9.3			
1.2.3		3.4			
33.33.34		35.65			
2.2		10.3			
2.3.4		2.3.4			
75.25.2		25.25.50			
3.2		11.3			
2.3.4		1.2.3.4			
86.5.9		27.18.32.23			
4.2		12.3			
2.3.4		3			
2.71.27		100			
5.2		30.3			
2.3.4		1.2			
19.57.24		75.25			
6.2		9.4			
1.2.3.4		1.2.4			
7.25.55.13		7.7.86			
7.2		10.4			
1.2.3.4		1.2.3			
8.31.44.17		33.33.34			
8.2		11.4			
2.3.4		1.2.3.4			
19.61.20		38.30.12.20			
		12.4			
		4			
		100			

LAX TUNNEL CONSTRUCTION INPUT DISTRIBUTIONS (VFR)

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS		RUNWAY/ARRIVAL FIX DISTRIBUTIONS
AIRLINE CATEGORY GATE, GATE, ... Z, Z, ...	GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...		ANY FIX CLASS FIX Z, Z, ...
	1, 1 } 1 100 }	5, 3 1, 2, 4 25, 25, 50	
	2, 1 1, 2, 4 39, 11, 50	8, 3 4 100	
	5, 1 1, 2 86, 14	2, 3 4 100	
	1, 1 1, 2, 4 5, 15, 80	9, 3 4 100	
	5, 1 4 100	10, 3 2, 4 50, 50	
	6, 1 1, 4 23, 27	11, 3 1, 2, 4 27, 20, 53	
	7, 1 1, 4 5, 95	12, 3 4 100	
	8, 1 2, 4 10, 90	9, 4 4 100	
	1, 2 1, 2 50, 50	10, 4 4 100	
	3, 2 1, 2 50, 50	11, 4 1, 2 75, 25	
	4, 2 1, 2, 4 40, 40, 20	12, 4 1, 2, 4 3, 95, 2	
	5, 2 1, 2, 4 25, 25, 50	3, 2 1, 3, 4 40, 7, 53	
	6, 2 1, 2, 4 25, 25, 50	13, 2 3, 4 23, 27	
	7, 2 1, 2, 4 25, 25, 50		
	8, 2 1, 2, 4 25, 25, 50		
	9, 2 2, 4 10, 90		
	10, 2 2, 4 50, 50		
	11, 2 1, 2 75, 25		
	12, 2 4 100		
	4, 3 2, 4 33, 67		

LAX TUNNEL CONSTRUCTION INPUT DISTRIBUTIONS (VFR)

GATE/DEPARTURE RUNWAY DISTRIBUTIONS		RUNWAY/DEPARTURE FIX DISTRIBUTIONS	
} GATE/CLASS RUNWAY, RUNWAY, ... Z, Z, ...		} FLAG, DEK, CLASS RUNWAY, RUNWAY, ... Z, Z, ... (FLAG=0, SET FIX=9)	
2.1	see	10.2	
2	Normal	4	
100	above	100	
3.1		11.2	
2		1.2.4	
100		10.25.65	
4.1		12.2	
2		4	
100		100	
5.1		13.2	
2		4	
100		100	
6.1		4.3	
1.2		2.4	
10.00		33.67	
7.1		3.4	
2		1.4	
100		33.67	
8.1		6.3	
1.2		4	
4.94		100	
10.1		2.4	
2		4	
100		100	
11.1		8.3	
2		4	
100		100	
12.1		8.3	
2		4	
100		100	
1.2		10.3	
1.2		4	
25.75		100	
3.2		11.3	
1.2		1.2.4	
25.75		25.50.25	
3.2		12.3	
1.2		4	
5.95		100	
1.2		6.4	
1.2.4		1.2.4	
10.25.65		2.2.84	
3.2		10.4	
1.2.4		1.2.4	
10.25.65		33.33.34	
4.2		11.4	
4		1.2.4	
100		38.42.20	
7.2		12.4	
4		4	
100		100	
8.2		1.1	
4		2.3	
100		98.2	
9.2			
4			
100			

TABLE 11

29

LAX TUNNEL CONSTRUCTION INPUT DISTRIBUTIONS (IPR)

GATE/DEPARTURE RUNWAY DISTRIBUTIONS		RUNWAY/DEPARTURE FIX DISTRIBUTIONS
} GATE/CLASS RUNWAY, RUNWAY, ... Z, Z,		FLAG, ^{RDY} RDY , CLASS RDY FIX Z, Z, ... (FLAG=0, SET FIX=9)
2.1 } 2.3 } 98.2 }	10.2 2.3 33.67	
3.1 2 100	11.2 2 100	
4.1 2 100	12.2 3 100	
5.1 2 100	13.2 3 100	
6.1 2 100	4.3 2.3 33.67	
7.1 2 100	5.3 2.3 25.75	
8.1 2 100	6.3 3 100	
10.1 2 100	7.3 3 100	
11.1 2 100	8.3 3 100	
12.1 3 100	9.3 3 100	
1.2 2 100	10.3 2.3 25.75	
2.2 2 100	11.3 2.3 50.50	
3.2 2 100	12.3 3 100	
4.2 2.3 50.50	9.4 2.3 16.86	
5.2 3 100	10.4 2.3 66.34	
6.2 3 100	11.4 2.3 68.32	
7.2 3 100	12.4 3 100	
8.2 3 100	1.1 2.3 98.2	
9.2 3 100	13.1 3 100	

TABLE 11 (cont.)

30

LAX TUNNEL CONSTRUCTION INPUT DISTRIBUTIONS (IFR)

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS		RUNWAY/ARRIVAL FIX DISTRIBUTIONS
AIRLINE CATEGORY GATE, GATE, ... Z, Z, ...	<div> <div>GATE, CLASS RUNWAY, RUNWAY, ... Z, Z, ...</div> <div></div> </div>		<div>RWY CLASS FIX</div> Z, Z, ...
	1.1	5.3	
	1	1.3	
	100	25.75	
	2.1	6.3	
	1	3	
	100	100	
	3.1	2.3	
	1	3	
	100	100	
	4.1	9.3	
	1	3	
	100	100	
	5.1	10.3	
	1	1.3	
	100	17.83	
	6.1	11.3	
	1	1.3	
	100	33.67	
	7.1	12.3	
	1	3	
	100	100	
	8.1	9.4	
	1	3	
	100	100	
	1.2	10.4	
	1.3	1	
	75.25	100	
	2.2	11.4	
	1.3	1	
	75.25	100	
	6.2	11.1	
	1.3	1	
	75.25	100	
	5.2	13.1	
	1.3	1	
	75.25	100	
	6.2	3.2	
	1.3	1.3	
	25.75	25.25	
	7.2	12.4	
	1.3	3	
	25.75	100	
	8.2		
	1.3		
	20.80		
	9.2		
	1.3		
	10.90		
	10.2		
	1.3		
	25.75		
	11.2		
	1.3		
	50.50		
	12.2		
	3		
	100		
	4.3		
	1.3		
	33.67		

TABLE 12

31

LAX 1987 INPUT DISTRIBUTIONS

AIRLINE GROUP/GATE DISTRIBUTIONS	GATE/ARRIVAL RUNWAY DISTRIBUTIONS			
AIRLINE CATEGORY GATE, GATE, ..., Z, Z,	GATE, CLASS RUNWAY, RUNWAY, ..., Z, Z,			
IA 20, 21, 22, 9, 10 61, 13, 61, 2, 3	1, 1 1, 2 60, 60	see format above	6, 2 1, 2, 3, 4 15, 15, 35, 35	7, 3 3, 4 50, 50
EA 3 100	2, 1 1, 2 60, 60	see format above	5, 2 1, 2, 3, 4 15, 15, 35, 35	8, 2 3, 4 50, 50
NA 2 100	3, 1 1, 2 60, 60	see format above	6, 2 3, 4 50, 50	9, 3 4 100
PA 3 100	6, 1 1, 2, 3, 4 15, 15, 35, 35	see format above	7, 2 3, 4 50, 50	10, 2 4 100
TW 1, 13, 14, 21 95, 1, 1, 3	5, 1 1, 2, 3, 4 15, 15, 35, 35	see format above	6, 2 3, 4 50, 50	7, 3 1, 2, 3, 4 15, 15, 35, 35
AA 4, 5, 21, 12 48, 49, 3, 1	6, 1 3, 4 50, 50	see format above	7, 2 4 100	8, 2 3 100
CO 6, 7 50, 50	7, 1 3, 4 50, 50	see format above	8, 2 4 100	9, 3 3 100
DL 6 100	8, 1 3, 4 50, 50	see format above	9, 2 1, 2, 3, 4 15, 15, 35, 35	10, 2 1, 2 40, 60
NW 4, 21 97, 3	9, 1 4 100	see format above	10, 2 3 100	11, 2 1, 2 40, 60
PS 19, 21, 12 98, 1, 1	10, 1 4 100	see format above	11, 2 3 100	12, 2 1, 2 40, 60
TI 6 100	11, 1 1, 2, 3, 4 15, 15, 35, 35	see format above	12, 2 1, 2 60, 60	13, 2 3, 4 50, 50
UA 7, 8 35, 45	12, 1 3 100	see format above	13, 2 1, 2 60, 60	14, 2 1, 2 40, 60
WA 5, 6 50, 50	13, 1 3 100	see format above	14, 2 1, 2 60, 60	15, 2 1, 2 40, 60
MI 9, 10 50, 50	14, 1 1, 2 40, 60	see format above	15, 2 3, 4 50, 50	16, 2 1, 2 40, 60
C1 20, 22, 19 21, 22, 24	20, 1 1, 2 40, 60	see format above	21, 2 1, 2 40, 60	22, 2 1, 2, 3, 4 15, 15, 35, 35
C2 9, 10, 21, 12 9, 5, 25, 1	21, 1 1, 2 60, 60	see format above	22, 2 1, 2 40, 60	23, 2 1, 2, 3, 4 15, 15, 35, 35
F1 10, 12 13, 27	22, 1 3, 4 50, 50	see format above	23, 2 1, 2 40, 60	24, 2 3, 4 50, 50
GA 9, 10, 21, 12 55, 8, 36, 1	1, 2 1, 2 40, 60	see format above	24, 2 1, 2, 3, 4 15, 15, 35, 35	25, 2 3, 4 50, 50
	2, 2 1, 2 40, 60	see format above	25, 2 1, 2, 3, 4 15, 15, 35, 35	26, 2 3, 4 50, 50
	3, 2 1, 2 60, 40	see format above	26, 2 3, 4 50, 50	27, 2 3, 4 50, 50

LAX 1987 INPUT DISTRIBUTIONS

GATE/DEPARTURE RUNWAY DISTRIBUTIONS				
} GATE/CLASS RUNWAY, RUNWAY, ... Z, Z, ...				
T, T	see	4, 2	7, 3	9, 4
2	format	2, 3, 4	3, 4	3, 4
100	above	25, 50, 25	50, 50	10, 20
2, 1		5, 2	8, 3	10, 4
2		3, 4	3, 4	3, 4
100		70, 30	50, 50	10, 20
3, 1		6, 2	9, 3	11, 4
2		3, 4	3, 4	3, 4
100		70, 30	20, 20	50, 50
4, 1		7, 2	10, 3	12, 4
2, 3, 4		3, 4	1, 3, 4	3, 4
25, 50, 25		70, 30	10, 10, 20	50, 50
5, 1		8, 2	11, 3	13, 4
3, 4		3, 4	1, 3, 4	3, 4
20, 20		70, 30	25, 50, 25	50, 50
6, 1		9, 2	12, 3	14, 4
3, 4		3, 4	3, 4	1, 2
20, 20		20, 80	50, 50	95, 5
7, 1		10, 2	13, 3	20, 4
3, 4		2, 3, 4	3, 4	1, 2
20, 20		10, 10, 30	50, 50	95, 5
8, 1		11, 2	14, 3	21, 4
3, 4		2, 3, 4	1, 2	1
20, 20		25, 50, 25	5, 95	100
9, 1		12, 2	20, 3	22, 4
3, 4		3, 4	1, 2	1, 3, 4
20, 20		70, 30	20, 20	25, 25, 50
10, 1		13, 2	21, 3	
1, 3, 4		3, 4	1	
10, 10, 20		70, 30	100	
11, 1		14, 2	22, 3	
2, 3, 4		1, 2	1, 3, 4	
25, 50, 25		5, 95	25, 25, 50	
12, 1		20, 2	1, 4	
3, 4		1, 2	1, 2	
20, 20		5, 95	95, 5	
13, 1		21, 2	2, 4	
3, 4		2, 3, 4	1, 2	
20, 20		25, 50, 25	95, 5	
14, 1		22, 2	3, 4	
2		2	1, 2	
100		100	95, 5	
20, 1		1, 3	4, 4	
2		1, 2	1, 2, 3, 4	
100		50, 50	15, 15, 35, 35	
21, 1		2, 3	5, 4	
2		1, 2	3, 4	
100		50, 50	50, 50	
22, 1		3, 2	6, 4	
2, 3, 4		1, 2	3, 4	
25, 50, 25		50, 50	50, 50	
1, 2		6, 3	7, 4	
1, 2		1, 2, 3, 4	3, 4	
5, 95		15, 15, 35, 35	50, 50	
2, 2		3, 3	8, 4	
1, 2		3, 4	3, 4	
5, 95		50, 50	50, 50	
3, 2		6, 3		
1, 2		3, 4		
60, 40		50, 50		

TABLE 12 (cont.)

33

LAX 1987 INPUT DISTRIBUTIONS

RUNWAY/ARRIVAL FIX DISTRIBUTIONS	RUNWAY/DEPARTURE FIX DISTRIBUTIONS
} FIX, CLASS RUNWAY, RUNWAY, ... Z, Z, ...	^{RWY} FLAG, CLASS Z, Z, ... (FLAG=0, SET FIX=9)
1,1 } see 1,2,3,4 } format 5,5,5,5,5 } above	Total 1,2 5,95
2,1 1,2,4 56,8,38	1,1,2 1,2 5,95
3,1 1,4 90,10	1,1,3 2 100
4,1 1,2,4 80,4,7	1,1,4 2 100
1,2 1,2,3,4,5 25,3,17,54,1	1,2,1 1,2 5,95
2,2 1,2,3,4,5 46,3,11,39,1	1,2,2 1,2 5,95
3,2 1,2,3,4,5 28,6,3,62,1	1,2,3 2 100
4,2 1,2,3,4,5 74,13,1,10,2	1,2,4 2 100
1,3 1,2,3,4,5,6 28,22,33,12,3,2	1,3,1 1 100
2,3 1,2,3,4,5,6 32,45,14,3,5,1	1,3,2 1 100
3,3 1,2,3,4,5 13,33,36,13,7	1,3,3 1 100
4,3 1,2,3,4,6 55,22,12,6,7	1,3,4 1 100
1,4 1,2,3,5 33,34,25,8	1,4,1 1 100
2,4 1,2,3,5 50,20,20,10	1,4,2 1 100
3,4 1,2,3,5 25,25,25,25	1,4,3 1 100
4,4 1,2,3,5 33,45,11,11	1,4,4 1 100

TABLE 13

34

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

FIELD DATA

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	28	16	2	94	140
CLASS 2	26	15	274	216	531
CLASS 3	115	32	26	64	237
CLASS 4	24	4	4	17	49
TOTAL	193	67	306	391	957

	DEPARTURES				
CLASS 1	6	244	2	4	256
CLASS 2	19	174	331	120	644
CLASS 3	41	33	71	79	224
CLASS 4	9	8	2	17	36
TOTAL	75	459	406	220	1160

ARRIVAL AND DEPARTURE TOTALS	268	526	712	611	2117
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ATTACHMENT E

CLASS and RUNWAY DEMAND DISTRIBUTION for ARRIVALS and DEPARTURES

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES

AUGUST 1979

INDEX of CLASS and RUNWAY DEMAND DISTRIBUTIONS for ARRIVAL and DEPARTURES

<u>ITEM NO.</u>	<u>EXPERIMENT NO.</u> <u>(TRAFFIC FLOW)</u>	<u>WEATHER</u>	<u>DEMAND</u>	<u>ATC SYSTEM</u>	<u>IMPROVEMENT</u>	<u>PAGE</u>
1	1 (Westerly)	VFR - 1	1978	1978	none	37
2	"	"	1982	"	"	38
3	11 "	"	"	1982	1982	39
4	13 "	"	"	"	1982 less #2 and #3	40
5	18 "	"	"	"	Dual Taxiway	41
6	2 "	IFR - 1	1978	1978	none	42
7	3 "	IFR - 2	"	"	"	43
8	8 "	IFR - 1	1982	"	"	44
9	12 "	"	"	1982	1982	45
10	19A "	VFR - 1	1982	1978	Terminal Expansion	46
11	20 "	"	"	1982	"	47
12	21 "	"	"	"	Remote Terminal	48
13	22 "	"	"	1978	Tunnel Construction	49
14	22A "	"	"	"	Dual Taxiway	50
15	23 "	IFR - 1	1982	1978	Tunnel Construction-25R	51
16	24 "	"	"	"	"	-25L 52
17	6 (Easterly)	VFR - 1	1978	1978	none	53
18	9 "	"	1982	"	"	54
19	16 "	"	"	1982	5, 7 and 8	55
20	4 (Night)	VFR - 1	1978	1978	none	56
21	10 "	"	1982	"	"	57
22	15 "	"	"	1982	5 and 7	58
23	5 "	IFR - 1	1978	1978	none	59
24	10A "	"	1982	"	"	60
25	25 (Westerly)	VFR - 1	1987	1987	1987	61
26	25A "	"	1987A	"	"	62
27	26 "	IFR - 1	1987	"	"	63

TABLE 14

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

37

EXPERIMENT NO. 1

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	15	4	0	33	52
CLASS 2	16	1	81	75	173
CLASS 3	30	8	2	20	60
CLASS 4	6	1	6	5	18
TOTAL	67	14	89	133	303

	DEPARTURES				
CLASS 1	2	89	3	1	95
CLASS 2	20	66	115	39	240
CLASS 3	11	9	23	25	68
CLASS 4	5	3	2	9	19
TOTAL	38	167	143	74	422

ARRIVAL AND DEPARTURE TOTALS	105	181	232	207	725
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TABLE 15
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

38

EXPERIMENT NO. 7

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	4	0	41	59
CLASS 2	24	2	83	78	187
CLASS 3	16	4	2	25	47
CLASS 4	9	1	4	4	18
TOTAL	63	11	89	148	311

	DEPARTURES				
CLASS 1	3	98	1	2	104
CLASS 2	30	69	116	39	254
CLASS 3	10	7	20	21	58
CLASS 4	5	3	2	9	19
TOTAL	48	177	139	71	435

ARRIVAL AND DEPARTURE TOTALS	111	188	228	219	746
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TABLE 16

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

39

EXPERIMENT NO. 11

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	13	4	0	42	59
CLASS 2	23	2	82	80	187
CLASS 3	17	5	2	23	47
CLASS 4	7	2	4	5	18
TOTAL	60	13	88	150	311

	DEPARTURES				
CLASS 1	0	54	40	10	104
CLASS 2	10	61	138	45	254
CLASS 3	10	7	19	22	58
CLASS 4	4	3	1	11	19
TOTAL	24	125	198	88	435

ARRIVAL AND DEPARTURE TOTALS	84	138	286	238	746
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TABLE 17
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

.40

EXPERIMENT NO. 13

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	13	4	0	42	59
CLASS 2	23	2	82	80	187
CLASS 3	17	5	2	23	47
CLASS 4	7	2	4	5	18
TOTAL	60	13	88	150	311

	DEPARTURES				
CLASS 1	0	54	40	10	104
CLASS 2	10	61	138	45	254
CLASS 3	10	7	19	22	58
CLASS 4	4	3	1	11	19
TOTAL	24	125	198	88	435

ARRIVAL AND DEPARTURE TOTALS	84	138	286	238	746
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TABLE 18

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

41

EXPERIMENT NO. 18

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	4	0	41	59
CLASS 2	24	2	83	78	187
CLASS 3	16	4	2	25	47
CLASS 4	9	1	4	4	18
TOTAL	63	11	89	148	311

	DEPARTURES				
CLASS 1	3	98	1	2	104
CLASS 2	30	69	116	39	254
CLASS 3	10	7	20	21	58
CLASS 4	5	3	2	9	19
TOTAL	48	177	139	71	435

ARRIVAL AND DEPARTURE TOTALS	111	188	228	219	746
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TABLE 19

CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

42

EXPERIMENT NO. 2

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	15	4	0	33	52
CLASS 2	77	1	20	75	173
CLASS 3	32	8	0	20	60
CLASS 4	8	1	4	5	18
TOTAL	132	14	24	133	303

	DEPARTURES				
CLASS 1	0	91	4	0	95
CLASS 2	0	86	154	0	240
CLASS 3	0	20	48	0	68
CLASS 4	0	8	11	0	19
TOTAL	0	205	217	0	422

ARRIVAL AND DEPARTURE TOTALS	67	219	306	133	725
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TABLE 20
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

4.3

EXPERIMENT NO. 3

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	19	0	0	33	52
CLASS 2	78	0	0	95	173
CLASS 3	40	0	0	20	60
CLASS 4	7	0	0	9	18
TOTAL	146	0	0	157	303

	DEPARTURES				
CLASS 1	0	91	4	0	95
CLASS 2	0	86	154	0	240
CLASS 3	0	20	48	0	68
CLASS 4	0	8	11	0	19
TOTAL	0	205	217	0	422

ARRIVAL AND DEPARTURE TOTALS	81	205	217	222	725
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TABLE 21

CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

44

EXPERIMENT NO. 8

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	4	0	41	59
CLASS 2	107	2	0	78	187
CLASS 3	16	4	2	25	47
CLASS 4	9	1	4	4	18
TOTAL	146	11	6	148	311

	DEPARTURES				
CLASS 1	0	101	3	0	104
CLASS 2	0	99	155	0	154
CLASS 3	0	17	41	0	58
CLASS 4	0	8	11	0	19
TOTAL	0	225	210	0	435

ARRIVAL AND DEPARTURE TOTALS	63	236	299	148	746
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TABLE 22
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

45

EXPERIMENT NO. 12

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	4	0	41	59
CLASS 2	107	2	0	78	187
CLASS 3	16	4	2	25	47
CLASS 4	9	1	4	4	18
TOTAL	146	11	6	148	311

	DEPARTURES				
CLASS 1	0	101	3	0	104
CLASS 2	0	99	155	0	154
CLASS 3	0	17	41	0	58
CLASS 4	0	8	11	0	19
TOTAL	0	225	210	0	435

ARRIVAL AND DEPARTURE TOTALS	63	236	299	148	746
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TABLE 23

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

46

EXPERIMENT NO. 19A

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	11	6	0	42	59
CLASS 2	31	2	68	86	187
CLASS 3	13	2	4	28	47
CLASS 4	6	1	5	6	18
TOTAL	61	11	77	162	311

	DEPARTURES				
CLASS 1	3	97	2	2	104
CLASS 2	37	69	112	36	254
CLASS 3	10	6	20	22	58
CLASS 4	5	3	2	9	19
TOTAL	55	175	136	69	435

ARRIVAL AND DEPARTURE TOTALS	116	186	213	231	746
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TABLE 24

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

47

EXPERIMENT NO. 20

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	11	6	0	42	59
CLASS 2	31	2	68	86	187
CLASS 3	13	2	4	28	47
CLASS 4	6	1	5	6	18
TOTAL	61	11	77	162	311

	DEPARTURES				
CLASS 1	3	97	2	2	104
CLASS 2	37	69	112	36	254
CLASS 3	10	6	20	22	58
CLASS 4	5	3	2	9	19
TOTAL	55	175	136	69	435

ARRIVAL AND DEPARTURE TOTALS	116	186	213	231	746
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TABLE 25

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

48

EXPERIMENT NO. 21

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	5	0	40	59
CLASS 2	24	2	83	78	187
CLASS 3	17	4	2	24	47
CLASS 4	6	1	6	5	18
TOTAL	61	12	91	147	311

	DEPARTURES				
CLASS 1	3	98	2	1	104
CLASS 2	30	69	115	40	254
CLASS 3	10	7	20	21	58
CLASS 4	4	4	2	9	19
TOTAL	47	178	139	71	435

ARRIVAL AND DEPARTURE TOTALS	108	190	230	218	746
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TABLE 26

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

49

EXPERIMENT NO. 22

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	5	0	40	59
CLASS 2	64	48	0	75	187
CLASS 3	7	6	0	34	47
CLASS 4	6	2	0	10	18
TOTAL	91	61	0	159	311

	DEPARTURES				
CLASS 1	2	102	0	0	104
CLASS 2	14	42	0	198	254
CLASS 3	8	15	0	35	58
CLASS 4	5	4	0	10	19
TOTAL	29	163	0	243	435

ARRIVAL AND DEPARTURE TOTALS	120	224	0	402	746
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TABLE 27

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

5.0

EXPERIMENT NO. 22A

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	14	5	0	40	59
CLASS 2	64	48	0	75	187
CLASS 3	7	6	0	34	47
CLASS 4	6	2	0	10	18
TOTAL	91	61	0	159	311

	DEPARTURES				
CLASS 1	2	102	0	0	104
CLASS 2	14	42	0	198	254
CLASS 3	8	15	0	35	58
CLASS 4	5	4	0	10	19
TOTAL	29	163	0	243	435

ARRIVAL AND DEPARTURE TOTALS	120	224	0	402	746
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TABLE 28

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

51

EXPERIMENT NO. 23

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	19	0	0	40	59
CLASS 2	112	0	0	75	187
CLASS 3	13	0	0	34	47
CLASS 4	8	0	0	10	18
TOTAL	152	0	0	159	311

	DEPARTURES				
CLASS 1	0	104	0	0	104
CLASS 2	0	56	0	198	254
CLASS 3	0	23	0	35	58
CLASS 4	0	9	0	10	19
TOTAL	0	192	0	243	435

ARRIVAL AND DEPARTURE TOTALS	152	192	0	402	746
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TABLE 29

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

52

EXPERIMENT NO. 24

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	59	0	0	0	59
CLASS 2	82	0	105	0	187
CLASS 3	8	0	39	0	47
CLASS 4	5	0	13	0	18
TOTAL	154	0	157	0	311

	DEPARTURES				
CLASS 1	0	102	2	0	104
CLASS 2	0	69	185	0	254
CLASS 3	0	18	40	0	58
CLASS 4	0	8	11	0	19
TOTAL	0	197	238	0	435

ARRIVAL AND DEPARTURE TOTALS	154	197	395	0	746
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TABLE 30

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

53

EXPERIMENT NO. 6

RUNWAY NAME	6R	6L	7R	7L	TOTAL
	ARRIVALS				
CLASS 1	4	15	33	0	52
CLASS 2	1	16	75	81	173
CLASS 3	8	30	20	2	60
CLASS 4	1	6	5	6	18
TOTAL	14	67	133	89	303

	DEPARTURES				
CLASS 1	89	2	1	3	95
CLASS 2	66	20	39	115	240
CLASS 3	9	11	25	23	68
CLASS 4	3	5	9	2	19
TOTAL	167	38	74	143	422

ARRIVAL AND DEPARTURE TOTALS	181	105	207	232	725
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TABLE 31
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

54.

EXPERIMENT NO. 9

RUNWAY NAME	6R	6L	7R	7L	TOTAL
	ARRIVALS				
CLASS 1	4	14	41	0	59
CLASS 2	2	24	78	83	187
CLASS 3	4	16	25	2	47
CLASS 4	1	9	4	4	18
TOTAL	11	63	148	89	311

	DEPARTURES				
CLASS 1	98	3	2	1	104
CLASS 2	69	30	39	116	254
CLASS 3	7	10	21	20	58
CLASS 4	3	5	9	2	19
TOTAL	177	48	71	139	435

ARRIVAL AND DEPARTURE TOTALS	188	111	219	228	746
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TABLE 32

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

55

EXPERIMENT NO. 16

RUNWAY NAME	6R	6L	7R	7L	TOTAL
	ARRIVALS				
CLASS 1	4	14	41	0	59
CLASS 2	2	24	78	83	187
CLASS 3	4	16	25	2	47
CLASS 4	1	9	4	4	18
TOTAL	11	63	148	89	311

	DEPARTURES				
CLASS 1	98	3	2	1	104
CLASS 2	69	30	39	116	254
CLASS 3	7	10	21	20	58
CLASS 4	3	5	9	2	19
TOTAL	177	48	71	139	435

ARRIVAL AND DEPARTURE TOTALS	188	111	219	228	746
---------------------------------------	-----	-----	-----	-----	-----

TABLE 33
CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

56

EXPERIMENT NO. 4

RUNWAY NAME	6R	7L	24L	25R	TOTAL
	ARRIVALS				
CLASS 1	10	23	0	0	33
CLASS 2	8	33	0	0	41
CLASS 3	7	4	0	0	11
CLASS 4	1	1	0	0	2
TOTAL	26	61	0	0	87

	DEPARTURES				
CLASS 1	0	0	40	5	45
CLASS 2	0	0	26	33	59
CLASS 3	0	0	6	6	12
CLASS 4	0	0	1	1	2
TOTAL	0	0	73	45	118

ARRIVAL AND DEPARTURE TOTALS	26	61	73	45	205
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TABLE 34

CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

57

EXPERIMENT NO. 10

RUNWAY NAME	6R	7L	24L	25R	TOTAL
	ARRIVALS				
CLASS 1	9	27	0	0	36
CLASS 2	8	33	0	0	41
CLASS 3	3	5	0	0	8
CLASS 4	0	2	0	0	2
TOTAL	20	67	0	0	87

	DEPARTURES				
CLASS 1	0	0	47	4	51
CLASS 2	0	0	27	39	66
CLASS 3	0	0	5	4	9
CLASS 4	0	0	1	1	2
TOTAL	0	0	80	48	128

ARRIVAL AND DEPARTURE TOTALS	20	67	80	48	215
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TABLE 35

CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES

58

EXPERIMENT NO. 15

RUNWAY NAME	6R	7L	24L	25R	TOTAL
	ARRIVALS				
CLASS 1	9	27	0	0	36
CLASS 2	8	33	0	0	41
CLASS 3	3	5	0	0	8
CLASS 4	0	2	0	0	2
TOTAL	20	67	0	0	87

	DEPARTURES				
CLASS 1	0	0	47	4	51
CLASS 2	0	0	27	39	66
CLASS 3	0	0	5	4	9
CLASS 4	0	0	1	1	2
TOTAL	0	0	80	48	128

ARRIVAL AND DEPARTURE TOTALS	20	67	80	48	215
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TABLE 36

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

59

EXPERIMENT NO. 5

RUNWAY NAME	6R	7L	24L	25R	TOTAL
	ARRIVALS				
CLASS 1	10	23	0	0	33
CLASS 2	8	33	0	0	41
CLASS 3	7	4	0	0	11
CLASS 4	1	1	0	0	2
TOTAL	26	61	0	0	87

	DEPARTURES				
CLASS 1	0	0	40	5	45
CLASS 2	0	0	26	33	59
CLASS 3	0	0	6	6	12
CLASS 4	0	0	1	1	2
TOTAL	0	0	73	45	118

ARRIVAL AND DEPARTURE TOTALS	26	61	73	45	205
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TABLE 37

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

60.

EXPERIMENT NO. 10A

RUNWAY NAME	6R	7L	24L	25R	TOTAL
	ARRIVALS				
CLASS 1	9	27	0	0	36
CLASS 2	8	33	0	0	41
CLASS 3	3	5	0	0	8
CLASS 4	0	2	0	0	2
TOTAL	20	67	0	0	87

	DEPARTURES				
CLASS 1	0	0	47	4	51
CLASS 2	0	0	27	39	66
CLASS 3	0	0	5	4	9
CLASS 4	0	0	1	1	2
TOTAL	0	0	80	48	128

ARRIVAL AND DEPARTURE TOTALS	20	67	80	48	215
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TABLE 38

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

61

EXPERIMENT NO. 25

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	16	12	24	23	75
CLASS 2	58	40	55	49	202
CLASS 3	12	8	1	27	48
CLASS 4	5	3	0	10	18
TOTAL	91	63	80	109	343

	DEPARTURES				
CLASS 1	0	49	63	20	132
CLASS 2	4	96	121	57	278
CLASS 3	25	0	5	20	50
CLASS 4	6	0	1	12	19
TOTAL	35	145	190	109	479

ARRIVAL AND DEPARTURE TOTALS	126	208	270	218	822
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TABLE 39

62

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

EXPERIMENT NO. 25A

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1					
CLASS 2					
CLASS 3					
CLASS 4					
TOTAL					

	DEPARTURES				
CLASS 1					
CLASS 2					
CLASS 3					
CLASS 4					
TOTAL					

ARRIVAL AND DEPARTURE TOTALS					
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TO BE DEVELOPED

TABLE 40

**CLASS AND RUNWAY DEMAND DISTRIBUTION
FOR ARRIVALS AND DEPARTURES**

63

EXPERIMENT NO. 26

RUNWAY NAME	24R	24L	25R	25L	TOTAL
	ARRIVALS				
CLASS 1	16	12	24	23	75
CLASS 2	58	40	55	49	202
CLASS 3	12	8	1	27	48
CLASS 4	5	3	0	10	18
TOTAL	91	63	80	109	343

	DEPARTURES				
CLASS 1	0	49	83	0	132
CLASS 2	0	100	178	0	278
CLASS 3	0	25	25	0	50
CLASS 4	0	6	13	0	19
TOTAL	0	180	299	0	479

ARRIVAL AND DEPARTURE TOTALS	91	243	379	109	822
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ATTACHMENT F

EXPERIMENTAL DESIGN for COMBINED STAGE 1 and 2

LOS ANGELES INTERNATIONAL AIRPORT

LOS ANGELES

AIRPORT IMPROVEMENT TASK FORCE DELAY STUDIES

AUGUST 1979

LAX CALA 1 BASE IS CAL (LAXCALA1) WITH SPEC-RTE-STRUCTURE

LAX STAGE 1, EXPERIMENT NO. 1 CONFIGURATION A

TIME (START-FINISH)

07 00 14 00

A/C SERVICE TIMES

1	40.00	3.00
2	30.00	3.00
3	20.00	2.00
4	20.00	2.00

LAX STAGE 1, EXPERIMENT NO. 7 CONFIGURATION A

LAX STAGE 2, EXPERIMENT NO. 22 CONFIGURATION A

LAX STAGE 1, EXPERIMENT NO. 2 CONFIGURATION A

A/C SEPARATIONS (1978 IFR-1)

1978 IFR-1 SEPARATION VALUES FOR ARRIVAL-TO-ARRIVAL

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
CLASS 1	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 2	5.2 (0.70)	6.1 (0.65)	7.0 (0.60)	6.8 (0.50)
CLASS 3	4.2 (0.70)	4.1 (0.65)	5.0 (0.60)	4.8 (0.50)
CLASS 4	4.2 (0.70)	4.1 (0.65)	4.0 (0.60)	3.8 (0.50)

1978 IFR-1 SEPARATION VALUES FOR DEPARTURE-TO-DEPARTURE

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
CLASS 1	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 2	1.14 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)
CLASS 3	1.13 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)
CLASS 4	1.13 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)

1978 IFR-1 SEPARATION VALUES FOR DEPARTURE-TO-ARRIVAL

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
CLASS 1	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 2	2.4 (0.26)	2.4 (0.25)	2.4 (0.24)	2.4 (0.24)
CLASS 3	2.4 (0.26)	2.4 (0.25)	2.4 (0.24)	2.4 (0.24)
CLASS 4	2.4 (0.26)	2.4 (0.25)	2.4 (0.24)	2.4 (0.24)

1978 IFR-1 ARRIVAL-TO-ARRIVAL AND DEPARTURE-TO-ARRIVAL SEPARATIONS FOR DEPENDENT RUNWAYS ARE 100 PERCENT AND 40 PERCENT OF SAME RUNWAY SEPARATIONS

LAX STAGE 1, EXPERIMENT NO. 8 CONFIGURATION A

LAX STAGE 2, EXPERIMENT NO. 23 CONFIGURATION A

LAX STAGE 2, EXPERIMENT NO. 24 CONFIGURATION A

LAX STAGE 1, EXPERIMENT NO. 3 CONFIGURATION A

IFR-2 RUNWAY CROSSING LINK CLEARANCE TIMES (ADD 5 SECONDS TO ARRIVAL ON RUNWAY)

2	307	30	30	38	40	22	22	23	26	30	30	30	30
2	312	47	47	51	40	31	31	33	42	30	30	30	30
2	317	57	57	51	40	36	36	38	42	30	30	30	30
2	320	61	59	51	40	43	43	42	42	30	30	30	30
2	323	61	59	51	40	46	46	42	42	30	30	30	30
3	275	56	56	65	50	35	35	37	42	30	30	30	30
3	272	57	61	77	50	42	42	42	42	30	30	30	30
3	269	57	61	77	50	43	43	42	42	30	30	30	30
3	262	72	67	65	57	46	46	42	42	30	30	30	30
3	260	61	64	68	57	47	47	42	42	30	30	30	30
3	280	56	51	59	47	47	47	42	42	30	30	30	30
4	279	56	51	59	47	47	47	42	42	30	30	30	30
4	258	72	67	65	57	47	47	42	42	30	30	30	30
4	284	43	43	52	50	29	29	21	42	30	30	30	30
-4	265	72	67	65	57	44	44	42	42	30	30	30	30

BUY ARRIVAL OCCUPANCY TIMES (1978 IFR-2 - 1978 VFR-1 PLUS 5 SECONDS)

1978 IFR-2 RUNWAY ARRIVAL OCCUPANCY TIMES (CALIBRATION DATA PLUS 5.0 SECONDS)

4000	42.0	4280	52.0	4501	59.4	5500	50.7	5700	47.0
6150	42.0	6400	56.9	6500	54.2	7500	60.8	7550	58.5
7780	59.2								

2200	39.5	2580	42.8	3000	56.0	4280	45.6	4500	57.7
4501	51.8	5350	47.4	5500	43.5	5700	47.8	6150	51.8
6400	53.8	6500	54.2	7550	56.6	7780	59.0	7820	64.0
8250	63.8								
2200	36.6	2580	41.0	2600	40.0	3000	47.7	4000	38.8
4280	64.3	4500	53.1	4501	43.0	4600	51.0	5350	55.3
5700	65.0	7550	68.3	7780	91.0				
2000	40.0	2580	37.4	4280	43.5	4500	50.0	5350	49.5
5700	57.0	7780	55.0						

A/C SEPARATIONS (1978 IFR-2) (CHANGE IFR-1 A/D BASED ON ARRIVAL RUNWAY OCCUPANCY)

IFR-2 SEPARATION VALUES SPECIAL A/D SEPARATION BASED ON ARRIVAL RUNWAY OCCUPANCY

CLASS 1	CLASS 2	CLASS 3	CLASS 4
MINUTES (S.D.)	MINUTES (S.D.)	MINUTES (S.D.)	MINUTES (S.D.)
0.96 (0.16)	0.86 (0.19)	1.05 (0.23)	0.82 (0.09)
0.96 (0.16)	0.86 (0.19)	1.05 (0.23)	0.82 (0.09)
0.96 (0.16)	0.86 (0.19)	1.05 (0.23)	0.82 (0.09)
0.96 (0.16)	0.86 (0.19)	1.05 (0.23)	0.82 (0.09)

IFR-2 SEPARATION CHANGES (IFR-1 VALUES AND 100 PERCENT OF SAME RUNWAY SEPARATIONS FOR DEPENDENT RUNWAY SEPARATIONS)

NEW SEQUENCE -- LAX CALA 1 -- BASE IS CAL (LAXCALA1) WITH SPEC-RTE

LAX STAGE 2- EXPERIMENT NO. 21 CONFIGURATION A

A/C SEPARATIONS (1982 VPR-1)

1982-VER-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI- (S-B.)	NMI- (S-B.)	NMI- (S-B.)	NMI- (S-B.)
CLASS 1	3.7 (0.43)	3.9 (0.40)	4.9 (0.37)	4.7 (0.31)
CLASS 2	2.9 (0.43)	2.8 (0.40)	3.6 (0.37)	3.4 (0.31)
CLASS 3	2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)
CLASS 4	2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)

LAX STAGE 1 EXPERIMENT NO. 13 CONFIGURATION A

BY XING LINES (LINK 372 CROSSING 24L)

372

TAXIWAY ROUTES (ACCESS TO 24R AND GATE 75)

TAXIWAY ROUTES (ACCESS TO BYPASS OF RUNWAY 24L TO RUNWAY 24R)

031 (ROUTE 444) MODIFY

075	375	374	156	157	158	365	159	160	364
161	162	163	363	164	303	362	304	368	134
135	136	334	335	137	138	370	371	372	373

19 (ROUTE 591) MODIFY

1	147	131	132	361	133	368	134	135	136
334	335	137	138	370	371	372	373	432	

11 (ROUTE 592) MODIFY

2	144	334	335	137	138	370	371	372	373
---	-----	-----	-----	-----	-----	-----	-----	-----	-----

432 (ROUTE 593) MODIFY

8	143	138	320	321	322	323	432		
3	143	138	320	321	322	323	432		

25 (ROUTE 594) MODIFY

4	331	339	126	127	128	129	299	300	308
361	133	368	134	135	136	334	335	137	138
370	371	372	373	432					

29 (ROUTE 595) MODIFY

005	204	355	128	358	149	359	309	296	297
298	299	300	308	361	133	368	134	135	136
334	335	137	138	320	371	372	373	432	

33 (ROUTE 596) MODIFY

006	205	353	180	179	355	178	358	169	359
309	297	298	129	299	300	308	361	133	134
368	134	135	136	334	335	137	138	370	371
372	373	432							

36 (ROUTE 597) MODIFY

7	204	352	182	181	353	180	179	355	178
358	149	359	309	296	297	298	129	299	300
308	361	133	368	134	135	136	334	335	137

138	370	371	372	373	432	MODIFY	
38			(ROUTE 598)				
8	203	184	183	352	182	181	179
355	178	358	149	359	309	296	129
299	300	308	361	133	368	134	135
335	137	138	370	371	372	373	334
38			(ROUTE 599)				
9	223	224	225	226	227	228	265
266	268	357	125	359	309	296	129
299	300	308	361	133	368	134	135
335	137	138	370	371	372	373	334
38			(ROUTE 600)				
10	328	230	265	266	268	357	125
296	297	298	129	299	300	308	361
134	135	136	334	335	137	138	370
373	432						371
22			(ROUTE 601)				372
11	148	128	129	299	300	308	361
134	135	136	334	335	137	138	370
373	432						371
054			(ROUTE 602)				
12	332	200	198	198	197	196	195
192	191	190	113	114	115	116	185
352	182	181	353	180	179	358	149
359	309	296	297	298	129	299	300
133	368	134	135	136	334	335	137
371	372	373	432				138
052			(ROUTE 603)				370
13	201	197	196	195	194	193	192
113	114	115	116	350	185	184	183
181	353	180	179	355	178	358	149
296	297	298	129	299	300	308	361
134	135	136	334	335	137	138	370
373	432						371
24			(ROUTE 604)				
14	325	344	161	162	163	363	164
304	368	134	135	136	334	335	137
371	372	373	432				138
44			(ROUTE 605)				
15	202	113	114	115	116	350	185
352	182	181	353	180	179	355	178
359	309	296	297	298	129	299	300
133	368	134	135	136	334	335	137
371	372	373	432				138
31			(ROUTE 606)				370
16	255	249	366	250	126	360	294
297	298	129	299	300	308	361	295
135	136	334	335	137	138	370	133
432							368
27			(ROUTE 607)				371
17	324	365	159	160	364	161	322
164	303	362	304	368	134	135	162
137	138	370	371	372	373	432	163
36			(ROUTE 608)				334
18	253	367	245	246	247	248	335
176	300	294	295	296	297	298	249
308	361	133	368	134	135	136	366
138	370	371	372	373	432		250

LAX STAGE 1, EXPERIMENT NO. 11 CONFIGURATION A

RVF-EXIT-SELECTION

225 0-22 284 0-50 222 0-28
 ----- SAME SEQUENCE -- LAX CALA 11 -- BASE IS CAL PLUS EXP 11 ROUTES
 TAXIWAY ROUTES (ACCESS TO 24R AND GATE 75-NEW EXIT ROUTES FOR HIGH SPEED-EXIT)
 TAXIWAY ROUTES (ACCESS TO BYPASS OF RUNWAY 24L TO RUNWAY 24R)
 TAXIWAY LINKS
 121 0.2 7

LAX STAGE 1, EXPERIMENT NO. 12 CONFIGURATION A

A/C SEPARATIONS (1982 IFR-1)

1982 IFR-1 SEPARATION VALUE FOR ARRIVAL-TO-ARRIVAL

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
CLASS 1	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
	4.0 (0.43)	3.9 (0.40)	4.9 (0.37)	4.7 (0.31)
CLASS 2	4.0 (0.43)	3.9 (0.40)	3.9 (0.37)	3.7 (0.31)
CLASS 3	4.0 (0.43)	3.9 (0.40)	3.9 (0.37)	3.7 (0.31)
CLASS 4	4.0 (0.43)	3.9 (0.40)	3.9 (0.37)	3.7 (0.31)

NEW SEQUENCE -- LAX CALA 18 -- BASE IS CAL PLUS EXP 18 ROUTES

LAX STAGE 2, EXPERIMENT NO. 22A CONFIGURATION A

A/C SEPARATIONS (1978 VFR-1)

TAXIWAY ROUTES (TAXIWAY IMPROVEMENTS IDENTIFIED IN APPENDIX B)

TAXIWAY LINKS

124	350.0	2
125	300.0	2
126	700.0	2
149	350.0	3
150	400.0	3
174	450.0	6
175	0.2	7
244	300.0	4
268	300.0	6
294	300.0	3
295	450.0	3
309	400.0	5
331	400.0	3

LAX STAGE 2, EXPERIMENT NO. 18 CONFIGURATION A

A/C SEPARATIONS (1982 VFR-1)

1982 VFR-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1	3.7 (0.43)	3.9 (0.40)	4.9 (0.37)	4.7 (0.31)
CLASS 2	2.9 (0.43)	2.8 (0.40)	3.6 (0.37)	3.4 (0.31)
CLASS 3	2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)
CLASS 4	2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)

LAX STAGE 2, EXPERIMENT NO. 20 CONFIGURATION A
 SAME SEQUENCE -- LAX-CALA-19 -- BASE-15-CAL-PLUS-EXP-19 ROUTES
 TAXIWAY ROUTES (TAXIWAY CHANGES DUE TO TERMINAL EXPANSION)

TAXIWAY LINKS	
129	350.0
299	500.0
309	500.0

LAX STAGE 2, EXPERIMENT NO. 19 CONFIGURATION A
 A/C SEPARATIONS (1978 VFR-1)

NEW SEQUENCE -- LAX CALA 25 -- BASE 15 CAL PLUS EXP 25 ROUTES

LAX STAGE 2, EXPERIMENT NO. 25 CONFIGURATION A
 TAXIWAY ROUTES (TAXIWAY CHANGES DUE TO TERMINAL EXPANSION, REMOTE TERMINAL AND
 DUAL TAXIWAY SYSTEM)

121	0.2	7		
A/C SEPARATIONS (1987 VFR-1)				
1987 VER-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)				
	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1	2.7 (0.31)	3.2 (0.29)	3.6 (0.27)	3.5 (0.29)
CLASS 2	2.6 (0.31)	2.6 (0.29)	3.1 (0.27)	3.0 (0.29)
CLASS 3	2.6 (0.31)	2.6 (0.29)	2.5 (0.27)	2.4 (0.29)
CLASS 4	2.6 (0.31)	2.6 (0.29)	2.5 (0.27)	2.4 (0.29)

LAX STAGE 2, EXPERIMENT NO. 25A CONFIGURATION A

LAX STAGE 2, EXPERIMENT NO. 26 CONFIGURATION A
 A/C SEPARATIONS (1987 IFR-1)
 1987 IFR-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1	2.7 (0.31)	3.2 (0.29)	3.6 (0.27)	3.5 (0.22)

CLASS	2	2.7 (0.31)	2.7 (0.29)	3.1 (0.27)	3.0 (0.22)
CLASS 3	2.7 (0.31)	2.7 (0.29)	2.6 (0.27)	2.5 (0.22)	
CLASS 4	2.7 (0.31)	2.7 (0.29)	2.6 (0.27)	2.5 (0.22)	

NEW SEQUENCE -- LAX-CALC 6 -- BASE IS CAL (LAXCALA1) WITH SPEC-RTE

LAX STAGE 1, EXPERIMENT NO. 6 CONFIGURATION C

TIMES(START,FINISH)

07 00 14 00

RVY NAMES

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

RVY END LINKS

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RVY END LINKS

3	3	2							
269	0.50	272	0.25	258	0.25				
4	3	2							
258	0.99	266	0.01						
1	4	4							
277	0.67	278	0.20	282	0.07	286	0.06		
2	4	4							
277	0.67	278	0.20	282	0.07	286	0.06		
3	4	4							
274	0.25	277	0.25	282	0.25	260	0.25		
-4	4	2							
260	0.99	268	0.01						

BUY EXIT DISTANCES

018									
310	5630	305	7050	145	7490	312	3840	307	5800
272	4500	275	7430	284	7300	269	6090	258	1970
277	6030	278	6650	282	7130	286	7400	274	4820
260	1970	268	3440	266	3440				

BUY ARRIVAL OCCUPANCY TIMES

1	8								
3840	47.0	5630	47.0	6030	60.0	6650	66.0	7050	70.0
7130	76.0	7400	76.0	7490	70.0				
2	8								
3840	47.0	5630	48.0	6030	60.0	6650	66.0	7050	61.0
7130	76.0	7400	76.0	7490	75.0				
3	4								
1970	42.0	6030	63.0	7130	139.0	7490	139.0		
-4	2								
1970	42.0	7490	139.0						

TAXIWAY TWO-WAY

LOS ANGELES CONFIGURATION C

004									
363	164	303	362						
004									
362	303	164	363						
004									
363	164	303	362	302	301				
006									
301	302	362	303	164	363				
005									
164	303	362	302	301					
005									
301	302	362	303	164					
002									
368	250								
002									
250	366								
006									
366	250	176	360	177	357				
006									
357	177	360	176	250	366				
008									
330	126	359	125	357	177	360	176		
008									
176	360	177	357	125	359	126	330		
005									
330	126	359	125	357					
005									
357	125	359	126	330					

007 359 125 352 177 360 176

007 360 127 357 125 359 331

004 331 359 125 352

004 357 125 359 331

246 247 248 249 366 250 176 360 177 357

010 357 177 360 176 250 366 249 248 247 246

008 246 247 248 249 366 250 176 360

008 360 176 250 366 249 248 247 246

006 202 113 114 115 116 350

006 350 116 115 114 113 202

005 113 114 115 116 350

-005 350 116 115 114 113

A/C SEPARATIONS (1928 VER-1)

FIX TRAVEL TIMES CONFIGURATION "C"

1 1 1 1 33.0 180.0

1 1 1 2 33.0 180.0

1 1 1 3 36.0 180.0

2 1 1 2 28.5 180.0

2 1 1 3 31.5 180.0

2 1 1 4 31.5 180.0

3 1 1 1 22.5 192.9

3 1 1 2 22.5 192.9

3 1 1 3 22.5 180.0

3 1 1 4 25.5 180.0

4 1 1 1 24.0 192.0

4 1 1 2 24.0 192.0

4 1 1 3 24.0 180.0

4 1 1 4 24.0 180.0

5 1 1 2 22.5 192.9

5 1 1 3 22.5 180.0

5 1 1 4 18.0 180.0

8 1 1 3 18.0 180.0

8 1 1 4 18.0 180.0

1 1 2 1 36.0 196.4

1 1 2 2 36.0 180.0

1 1 2 3 36.0 180.0

2 1 2 1 28.5 180.0

2 1 2 2 28.5 180.0

2 1 2 3 28.5 180.0

2 1 2 4 28.5 180.0

3 1 2 1 25.5 191.3

3 1 2 2 25.5 191.3

3 1 2 3 25.5 191.3

3 1 2 4 25.5 180.0

4 1 2 1 25.5 204.0

4 1 2 2 25.5 191.3

4 1 2 3 25.5 180.0

4 1 2 4 25.5 180.0

4 1 2 5 25.5 180.0

4 1 2 6 25.5 180.0

4 1 2 7 25.5 180.0

4 1 2 8 25.5 180.0

4 1 2 9 25.5 180.0

4 1 2 10 25.5 180.0

4 1 2 11 25.5 180.0

4 1 2 12 25.5 180.0

4 1 2 13 25.5 180.0

4 1 2 14 25.5 180.0

4 1 2 15 25.5 180.0

4 1 2 16 25.5 180.0

4 1 2 17 25.5 180.0

4 1 2 18 25.5 180.0

4 1 2 19 25.5 180.0

4 1 2 20 25.5 180.0

4 1 2 21 25.5 180.0

4 1 2 22 25.5 180.0

4 1 2 23 25.5 180.0

4 1 2 24 25.5 180.0

4 1 2 25 25.5 180.0

4 1 2 26 25.5 180.0

4 1 2 27 25.5 180.0

4 1 2 28 25.5 180.0

4 1 2 29 25.5 180.0

4 1 2 30 25.5 180.0

4 1 2 31 25.5 180.0

4 1 2 32 25.5 180.0

4 1 2 33 25.5 180.0

4 1 2 34 25.5 180.0

4 1 2 35 25.5 180.0

4 1 2 36 25.5 180.0

4 1 2 37 25.5 180.0

4 1 2 38 25.5 180.0

4 1 2 39 25.5 180.0

4 1 2 40 25.5 180.0

4 1 2 41 25.5 180.0

4 1 2 42 25.5 180.0

4 1 2 43 25.5 180.0

4 1 2 44 25.5 180.0

4 1 2 45 25.5 180.0

4 1 2 46 25.5 180.0

4 1 2 47 25.5 180.0

4 1 2 48 25.5 180.0

4 1 2 49 25.5 180.0

4 1 2 50 25.5 180.0

4 1 2 51 25.5 180.0

4 1 2 52 25.5 180.0

4 1 2 53 25.5 180.0

4 1 2 54 25.5 180.0

4 1 2 55 25.5 180.0

4 1 2 56 25.5 180.0

4 1 2 57 25.5 180.0

4 1 2 58 25.5 180.0

4 1 2 59 25.5 180.0

4 1 2 60 25.5 180.0

4 1 2 61 25.5 180.0

4 1 2 62 25.5 180.0

4 1 2 63 25.5 180.0

4 1 2 64 25.5 180.0

4 1 2 65 25.5 180.0

4 1 2 66 25.5 180.0

4 1 2 67 25.5 180.0

4 1 2 68 25.5 180.0

4 1 2 69 25.5 180.0

4 1 2 70 25.5 180.0

4 1 2 71 25.5 180.0

4 1 2 72 25.5 180.0

4 1 2 73 25.5 180.0

4 1 2 74 25.5 180.0

4 1 2 75 25.5 180.0

4 1 2 76 25.5 180.0

4 1 2 77 25.5 180.0

4 1 2 78 25.5 180.0

4 1 2 79 25.5 180.0

4 1 2 80 25.5 180.0

4 1 2 81 25.5 180.0

4 1 2 82 25.5 180.0

4 1 2 83 25.5 180.0

4 1 2 84 25.5 180.0

4 1 2 85 25.5 180.0

4 1 2 86 25.5 180.0

4 1 2 87 25.5 180.0

4 1 2 88 25.5 180.0

4 1 2 89 25.5 180.0

4 1 2 90 25.5 180.0

4 1 2 91 25.5 180.0

4 1 2 92 25.5 180.0

4 1 2 93 25.5 180.0

4 1 2 94 25.5 180.0

4 1 2 95 25.5 180.0

4 1 2 96 25.5 180.0

4 1 2 97 25.5 180.0

4 1 2 98 25.5 180.0

4 1 2 99 25.5 180.0

4 1 2 100 25.5 180.0

4 1 2 101 25.5 180.0

4 1 2 102 25.5 180.0

4 1 2 103 25.5 180.0

4 1 2 104 25.5 180.0

4 1 2 105 25.5 180.0

4 1 2 106 25.5 180.0

4 1 2 107 25.5 180.0

4 1 2 108 25.5 180.0

4 1 2 109 25.5 180.0

4 1 2 110 25.5 180.0

4 1 2 111 25.5 180.0

4 1 2 112 25.5 180.0

4 1 2 113 25.5 180.0

4 1 2 114 25.5 180.0

4 1 2 115 25.5 180.0

4 1 2 116 25.5 180.0

4 1 2 117 25.5 180.0

4 1 2 118 25.5 180.0

4 1 2 119 25.5 180.0

4 1 2 120 25.5 180.0

4 1 2 121 25.5 180.0

4 1 2 122 25.5 180.0

4 1 2 123 25.5 180.0

4 1 2 124 25.5 180.0

4 1 2 125 25.5 180.0

4 1 2 126 25.5 180.0

4 1 2 127 25.5 180.0

4 1 2 128 25.5 180.0

4 1 2 129 25.5 180.0

4 1 2 130 25.5 180.0

4 1 2 131 25.5 180.0

4 1 2 132 25.5 180.0

4 1 2 133 25.5 180.0

4 1 2 134 25.5 180.0

4 1 2 135 25.5 180.0

4 1 2 136 25.5 180.0

4 1 2 137 25.5 180.0

4 1 2 138 25.5 180.0

4 1 2 139 25.5 180.0

4 1 2 140 25.5 180.0

4 1 2 141 25.5 180.0

4 1 2 142 25.5 180.0

4 1 2 143 25.5 180.0

4 1 2 144 25.5 180.0

4 1 2 145 25.5 180.0

4 1 2 146 25.5 180.0

4 1 2 147 25.5 180.0

4 1 2 148 25.5 180.0

4 1 2 149 25.5 180.0

4 1 2 150 25.5 180.0

4 1 2 151 25.5 180.0

4 1 2 152 25.5 180.0

4 1 2 153 25.5 180.0

4 1 2 154 25.5 180.0

4 1 2 155 25.5 180.0

4 1 2 156 25.5 180.0

4 1 2 157 25.5 180.0

4 1 2 158 25.5 180.0

4 1 2 159 25.5 180.0

4 1 2 160 25.5 180.0

4 1 2 161 25.5 180.0

4 1 2 162 25.5 180.0

4 1 2 163 25.5 180.0

4 1 2 164 25.5 180.0

4 1 2 165 25.5 180.0

4 1 2 166 25.5 180.0

4 1 2 167 25.5 180.0

4 1 2 168 25.5 180.0</

5	2	2	18.0	180.0
5	2	3	18.0	180.0
5	2	4	18.0	180.0
8	2	3	18.0	180.0
1	4	1	33.0	180.0
1	4	2	34.5	197.1
1	4	3	34.5	180.0
2	4	2	36.0	180.0
2	4	3	36.0	180.0
2	4	4	36.0	180.0
3	4	2	21.0	210.0
3	4	3	21.0	180.0
3	4	4	18.0	180.0
4	4	1	24.0	192.0
4	4	2	24.0	192.0
4	4	3	24.0	192.0
4	4	4	24.0	180.0
5	4	2	18.0	180.0
5	4	3	18.0	180.0
5	4	4	18.0	180.0
8	4	2	18.0	180.0
1	3	1	33.0	180.0
1	3	2	31.5	180.0
1	3	3	31.5	180.0
2	3	2	36.0	180.0
2	3	3	18.0	180.0
3	3	1	18.0	180.0
3	3	2	18.0	180.0
3	3	3	18.0	180.0
3	3	4	18.0	180.0
4	3	1	24.0	192.0
4	3	2	24.0	192.0
4	3	3	24.0	180.0
4	3	4	24.0	180.0
5	3	2	21.0	180.0
8	3	3	18.0	180.0
7	3	2	18.0	180.0
7	3	4	18.0	180.0
-8	3	4	18.0	180.0

LAX STAGE 1, EXPERIMENT NO. 9 CONFIGURATION C

74

LAX STAGE 1, EXPERIMENT NO. 16 CONFIGURATION C
RUY-ING-LINKS (LINK 378 CROSSING 7L)

			30	30	30	30
RUY-EXIT-SELECTION						
1	1	2				
369	0.70	145	0.30			
2	1	2				
369	0.91	145	0.09			
3	1	2				
369	0.91	145	0.09			
4	1	2				
369	0.91	145	0.09			
1	4	2				

[illegible]

231	232	233	234	235	236	237	238	239	410
011	(ROUTE 564) SAME								
010	230	231	232	233	234	235	236	237	238
410									
23	(ROUTE 565) MODIFY								
11	330	126	359	125	357	177	360	176	250
366	249	249	247	246	245	367	244	243	377
378	379	410							
49	(ROUTE 566) MODIFY								
12	332	200	199	198	197	196	195	194	193
192	191	190	113	114	115	116	350	185	184
183	352	182	181	353	180	179	355	178	358
150	357	177	360	176	250	366	249	248	247
246	245	367	244	243	377	378	379	410	
46	(ROUTE 567) MODIFY								
13	201	197	196	195	194	193	192	191	190
113	114	115	116	350	185	184	183	352	182
181	353	180	179	355	178	358	150	357	177
360	176	250	366	249	248	247	246	245	367
244	243	377	378	379	410				
33	(ROUTE 568) MODIFY								
14	325	364	161	162	163	363	164	165	166
167	168	169	170	171	172	173	174	175	250
366	249	248	247	246	245	367	244	243	377
378	379	410							
39	(ROUTE 569) MODIFY								
15	202	113	114	115	116	350	117	185	184
183	352	182	181	353	180	179	355	178	358
150	357	177	360	176	250	366	249	248	247
246	245	367	244	243	377	378	379	410	
13	(ROUTE 570) MODIFY								
16	255	248	247	246	245	367	244	243	377
378	379	410							
36	(ROUTE 571) MODIFY								
17	324	365	159	160	364	161	162	163	363
164	165	166	167	168	169	170	171	172	173
174	175	250	366	249	248	247	246	245	367
244	243	377	378	379	410				
9	(ROUTE 572) MODIFY								
18	253	367	244	243	377	378	379	410	

A/C SEPARATIONS (1982 VFR-1)
 1982 VFR-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)

CLASS 1	CLASS 2	CLASS 3	CLASS 4
NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
3.7 (0.43)	3.9 (0.40)	4.9 (0.37)	4.7 (0.31)
2.9 (0.43)	2.8 (0.40)	3.6 (0.37)	3.4 (0.31)
2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)
2.9 (0.43)	2.8 (0.40)	2.8 (0.37)	2.6 (0.31)

LAX STAGE 1, EXPERIMENT NO. 4 CONFIGURATION B

TIMES(START,FINISH)

00 00 08 00

RUN NAMES

06R 07L 24L 25R

RUN END LINKS

151 422 423 411

LAX RUN XINGS CONFIG. B

2 266 37 37 36 33 30 30 30 30

2 280 45 40 56 49 30 30 30 30

4 266 45 45 42 42 45 45 42 42

4 282 29 29 21 42 29 29 21 42

4 260 29 29 21 42 29 29 21 42

-4 280 29 29 21 42 29 29 21 42

RUN EXIT SELECTION

1 1 3

310 0.30 305 0.40 145 0.30

2 1 3

310 0.54 305 0.37 145 0.09

3 1 3

310 0.54 305 0.37 145 0.09

4 1 3

310 0.54 305 0.37 145 0.09

1 2 4

277 0.67 278 0.20 282 0.07 286 0.06

2 2 4

277 0.67 278 0.20 282 0.07 286 0.06

3 2 4

274 0.25 277 0.25 282 0.25 260 0.25

-4 2 2

260 0.99 268 0.01

RUN EXIT DISTANCES

10

310 5630 305 7050 145 7490 274 4820 278 6650

282 7130 286 7400 277 6030 260 1970 268 3440

RUN ARRIVAL OCCUPANCY TIMES

1 7

5630 47.0 6030 60.0 6650 66.0 7050 70.0 7130 76.0

7400 76.0 7490 70.0

2 7

5630 48.0 6030 60.0 6650 66.0 7050 61.0 7130 76.0

7400 76.0 7490 75.0

3 5

1970 62.0 4820 64.0 6030 63.0 7130 139.0 7490 139.0

-4 2

1970 42.0 7490 139.0

TAXIWAY TWO-WAY

LOS ANGELES CONFIGURATION B

002 331

002 359

331 359

002 206

355 206

002 355

206 355

002 355

206 355

002 355

206 355

002 355

206 355

353 205

002

205 353

002

352 204

002

204 352

002

361 146

002

146 361

003

206 355 208

003

208 355 206

003

205 353 210

003

210 353 205

004

204 352 211 351

004

351 211 352 204

003

203 185 350

003

350 185 203

005

113 114 115 116 350

005

350 116 115 114 113

006

202 113 114 115 116 350

006

350 116 115 114 113 202

005

330 126 359 125 357

005

357 125 359 126 330

004

331 359 125 357

004

357 125 359 331

002

361 146

002

146 361

002

361 146 336 337 338 339 340

002

340 339 338 337 336 146 361

002

366 250

002

250 366

006

366 250 176 360 177 357

-006

357 177 360 176 250 366

A/C SEPARATIONS (1978 VFR-1 SPECIAL SEPARATIONS FOR D/A -- 15 NM1)
 1978 VFR-1 SPECIAL D/A SEPARATIONS (RUNWAYS 24L-6R, 25R-7L)
 DEPENDENT RUNWAYS 3-1, 4-2

CLASS 1	CLASS 2	CLASS 3	CLASS 4
NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1 15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 2 15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 3 15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 4 15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)

1978 VFR-1 SPECIAL A/D SEPARATIONS (RUNWAYS 6R-24L AND 7L-25R)
 DEPENDENT RUNWAYS 1-3 AND 2-4

CLASS 1	CLASS 2	CLASS 3	CLASS 4
MINUTES (S.D.)	MINUTES (S.D.)	MINUTES (S.D.)	MINUTES (S.D.)
CLASS 1 0.88 (0.16)	0.78 (0.19)	0.97 (0.23)	0.74 (0.09)
CLASS 2 0.88 (0.16)	0.78 (0.19)	0.97 (0.23)	0.74 (0.09)
CLASS 3 0.88 (0.16)	0.78 (0.19)	0.97 (0.23)	0.74 (0.09)
CLASS 4 0.88 (0.16)	0.78 (0.19)	0.97 (0.23)	0.74 (0.09)

FIX TRAVEL TIMES CONFIGURATION "B"

1	1	33.0	180.0
1	1	33.0	180.0
1	1	36.0	180.0
2	1	28.5	180.0
2	1	31.5	180.0
2	1	31.5	180.0
3	1	22.5	192.9
3	1	22.5	192.9
3	1	22.5	180.0
3	1	25.5	180.0
4	1	24.0	192.0
4	1	24.0	192.0
4	1	24.0	180.0
4	1	24.0	180.0
5	1	22.5	192.9
5	1	22.5	180.0
5	1	18.0	180.0
8	1	18.0	180.0
8	1	18.0	180.0
1	2	33.0	180.0
1	2	34.5	197.1
1	2	34.5	180.0
2	2	36.0	180.0
2	2	36.0	180.0
2	2	36.0	180.0
3	2	21.0	210.0
3	2	21.0	180.0
3	2	21.0	180.0
4	2	24.0	192.0
4	2	24.0	192.0
4	2	24.0	192.0
4	2	24.0	180.0
5	2	18.0	180.0
5	2	18.0	180.0
5	2	18.0	180.0
-8	2	18.0	180.0

NOT A COLLECTION

[illegible]

A/C SEPARATIONS (1982 VER-1)

1982 VFR-1 SEPARATION CHANGES (ARRIVAL-TO-ARRIVAL FOR SAME RUNWAY)

	CLASS 1		CLASS 2		CLASS 3		CLASS 4	
	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)
CLASS 1	3.7	(0.43)	3.9	(0.40)	4.9	(0.37)	4.7	(0.31)
CLASS 2	2.9	(0.43)	2.8	(0.40)	3.6	(0.37)	3.6	(0.31)
CLASS 3	2.9	(0.43)	2.8	(0.40)	2.8	(0.37)	2.6	(0.31)
CLASS 4	2.9	(0.43)	2.8	(0.40)	2.8	(0.37)	2.6	(0.31)

LAX STAGE 1, EXPERIMENT NO. 5 CONFIGURATION B

A/C SEPARATIONS -- (1978-IFR=1)

1978 IFR-1 SEPARATION VALUES FOR ARRIVAL-TO-ARRIVAL

	CLASS 1		CLASS 2		CLASS 3		CLASS 4	
	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)
CLASS 1	5.2	(0.70)	6.1	(0.65)	7.0	(0.60)	6.8	(0.50)
CLASS 2	4.2	(0.70)	4.1	(0.65)	5.0	(0.60)	4.8	(0.50)
CLASS 3	5.2	(0.70)	5.1	(0.65)	4.0	(0.60)	3.8	(0.50)
CLASS 4	4.2	(0.70)	4.1	(0.65)	4.0	(0.60)	3.8	(0.50)

1978. IFR-1 SEPARATION VALUES FOR DEPARTURE-TO-DEPARTURE

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1	1.64 (0.08)	2.14 (0.08)	2.14 (0.08)	2.14 (0.08)
CLASS 2	1.14 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)
CLASS 3	1.13 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)
CLASS 4	1.13 (0.08)	1.14 (0.08)	1.13 (0.08)	1.13 (0.08)

1978 IFR-1 SEPARATION VALUES FOR DEPARTURE-TO-ARRIVAL

	CLASS 1		CLASS 2		CLASS 3		CLASS 4	
	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)	NMI.	(S.D.)
CLASS 1	2.4	(0.26)	2.4	(0.25)	2.4	(0.24)	2.4	(0.24)
CLASS 2	2.4	(0.26)	2.4	(0.25)	2.4	(0.24)	2.4	(0.24)
CLASS 3	2.4	(0.26)	2.4	(0.25)	2.4	(0.24)	2.4	(0.24)
CLASS 4	2.4	(0.26)	2.4	(0.25)	2.4	(0.24)	2.4	(0.24)

1978 IFR-1 SPECIAL D/A SEPARATIONS (RUNWAYS 24L-6R,7L AND 25R-6R,7L)

	CLASS 1	CLASS 2	CLASS 3	CLASS 4
	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)	NMI. (S.D.)
CLASS 1	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 2	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 3	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)
CLASS 4	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)	15.0 (0.01)

LAX STAGE 1, EXPERIMENT NO. 10A CONFIGURATION B

ADD THESE TAXIWAY LINKS TO SPEC-LNK

TAXIWAY LINKS	1	7
19	.01	7
20	.01	7
21	.01	7
22	.01	7
270	300.0	4
273	1150.0	6
377	0.1	7
378	500.0	6
379	1000.0	6
380	0.2	7
381	480.0	4
382	500.0	4
383	480.0	4
384	300.0	3
385	300.0	3
386	0.2	7
387	300.0	3

DATE
ILME